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<tr>
<td>A-104</td>
<td>Roof Details</td>
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</tbody>
</table>

END OF SPECIFICATION SECTION
SECTION 00 10 00
SOLICITATION

1.0 SOLICITATION INFORMATION

Schedule

Bid Documents:

All bid documents may be obtained at the East Providence School District Director of Finance Office located at 1998 Pawtucket Avenue, East Providence, RI between 8am and 4pm Monday through Friday beginning on June 24, 2022, or by email request tojspokis@jensenhughes.com.

Pre-Bid Conference:

A pre-bid conference will be held commencing at 11:00AM on Wednesday, July 6, 2022, at 1998 Pawtucket Avenue, East Providence, RI. Attendance is strongly encouraged as this will be bidders’ opportunity to visit and familiarize themselves with the facility where they will be providing services, so that they may respond accurately to this RFP.

RFP Submission Deadline:

Tuesday, August 2, 2022, at 10:00AM. Late submittals will be immediately disqualified.

Requests for Information:

Requests for Information during the Bidding Period will be accepted until 5:00 p.m. on Thursday, July 12, 2022.

Requests for information or clarification must be made electronically to the attention ofjspokis@jensenhughes.com.

Answers to RFI’s received, will be forwarded electronically to all bidders who have registered and obtained a set of bid documents.

Proposals must be mailed or hand-delivered in a sealed envelope marked as follows:

Marked as:

East Providence School Department
Administrative Building
Roof & Metal Fascia Replacement

To:

Craig Enos
East Providence School District – Director of Finance
1998 Pawtucket Avenue
East Providence, RI 02914-4505
Bonds
A Bid Bond in the amount of 5% of the bid must accompany each bid. Checks for Bid Security will not be accepted in lieu of a Bid Bond.

A 100% Payment and Performance Bond will be required by the awarded bidder along with all insurance documentation as required by the East Providence School Department.

Miscellaneous
The bid process and resulting contract are subject to the Rules and Regulations and General Terms and Conditions of Purchase. Submission of a bid in response to this solicitation is acknowledgement and acceptance of these Rules and Regulations and General Terms and Conditions of Purchase.

The East Providence School Department reserves the right to award on the basis of cost alone, accept or reject any or all bids, and to act in its best interest. Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. The East Providence School Department may, at its sole option, elect to require presentations(s) by bidders clearly in consideration for award.

2.0 BIDDER INSTRUCTIONS

It is the bidder's responsibility to examine all specifications and conditions thoroughly and comply fully with specifications and all attached terms and conditions. Bidders must comply with all Federal, State, and City laws, ordinances and regulations, and meet any and all registration requirements where required for contractors as set forth by the State of Rhode Island. Failure to make a complete submission as described herein may result in a rejection of the proposal.

All costs associated with developing or submitting a proposal in response to this Request, or to provide oral or written clarification of its content shall be borne by the bidder. The East Providence School Department assumes no responsibility for these costs.

Proposals are considered to be irrevocable for a period of not less than thirty (30) days following the opening date, and may not be withdrawn, except with the express written permission of the Director of Finance. Should any bidder object to this condition, the bidder must provide objection through a question and/or complaint to the Director of Finance prior to the proposal deadline.

All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.

The bidder has full responsibility to ensure that the proposal arrives at the stated bid location prior to the deadline set out herein. The East Providence School Department assumes no responsibility for delays caused by the U.S. Postal Service or any other delivery service.

Postmarking by the due date will not substitute for actual receipt of response by the due date. Proposals arriving after the deadline may be returned, unopened, to the bidder, or may simply be declared non-responsive and not subject to evaluation, at the sole discretion of the East Providence School Department. For the purposes of this requirement, the official time and date shall be that of the clock in the Office of the City Manager’s administrative area.

It is intended that an award pursuant to this Request will be made to a prime contractor, who will assume responsibility for all aspects of the work. Joint venture and cooperative proposals will not be considered, but subcontracts are permitted, provided that their use is clearly indicated in the bidder's proposal, and the subcontractor(s) proposed to be used are identified in the proposal.

Bidders are advised that all materials submitted to the East Providence School Department for consideration in response to this Request for Proposals shall be considered to be public records as defined in Title 38 Chapter 2 of the Rhode Island General Laws, without exception, and may be released for
inspection immediately upon request once an award has been made.

Bidders are responsible for errors and omissions in their proposals. No such error or omission shall diminish the bidder’s obligations to the East Providence School Department.

The East Providence School Department reserves the right to reject any or all proposals, or portions thereof, at any time, with no penalty. The East Providence School Department also has the right to waive immaterial defects, minor irregularities and formalities in any submitted proposal at its sole discretion. All material submitted in response to this RFP shall become the property of the East Providence School Department upon delivery to the stated bid submission location.

There will be a public bid opening immediately following the submission deadline.

3.0 OVERVIEW

The Owner (East Providence School Department) through its Owner’s Project Manager (Jensen Hughes) are soliciting bids for the School Department Administrative Building Roof & Metal Fascia Replacement.

The Bid Documents, consisting of the Project Manual along with the Plans and Specifications prepared by Jensen Hughes comprises the bidding and construction documentation for this project. This Invitation to Bid provides an overview of the bidding process and logistics for this project.

4.0 SCOPE OF WORK

The complete scope of work is indicated on the bid drawings and specifications. The following information includes the project team:

Project:

East Providence School Department
Administrative Building
Roof & Metal Fascia Replacement

Owner:

East Providence School Department
1998 Pawtucket Avenue
East Providence, RI 02914

Project Manager:

Jensen Hughes
117 Metro Center Boulevard, Suite 1002
Warwick, RI 02886

Schedule

The contract will be awarded in August 2022 with submittal preparation, approval and materials acquisition to happen immediately thereafter. Onsite work can also start immediately upon contract award following acquisition of appropriate permits and approvals. Substantial completion is required to be achieved by November 9, 2022. Final completion is required to be achieved by December 14, 2022. Liquidated
damages will be applicable for failure by the contractor to meet the substantial completion date of November 9, 2022, and/or the final completion date of December 14, 2022. Liquidated damages will be assessed in the amount of $2,000 per day.

All parking, storage and logistic items for construction will be confined to the construction areas as shown on the Bid Documents or as otherwise agreed to between the successful bidder and the East Providence School Department. Smoking on School grounds is prohibited and failure to conform to this requirement will result in removal from the Project.

Bid Document Availability
Project Documents will be made available in electronic format through USB drives issued by the East Providence School Department.

Prevailing Wage
Local wage rates apply to this project. It is the responsibility of the Contractor before bid openings to request, if necessary, any additional information on local Wage Rates for those trades-people who are not covered by the applicable local Wage Decision, but who may be employed for the proposed work under this Contract. The Contractor shall obtain the latest wage rates as issued by the Department of Labor and Training.

Form of Contract
A lump sum contract (see attached sample contract) will be executed with the successful bidder for the construction of the entire project. The sample contract included in the bid documents will be utilized. No exception to the scope of work or contract will be considered unless such notification is given before the bid due date and within the Bid Submission.

5.0 PROJECT REQUIREMENTS & CONDITIONS
Contractors shall not order any equipment and shall not begin any work until submittals have been reviewed to the satisfaction of Jensen Hughes. Contractors shall not perform any installation prior to the receipt of a written authority to proceed from Jensen Hughes and receipt of a written permit to proceed by the East Providence Building/Fire Department. Initial payment shall not be made until the "Pre-Installation Documentation" submittal process has been completed.

Jensen Hughes shall review these documents for the limited purposes of checking for general conformance with the design and not to determine accuracy or completeness of other details such as dimensions and quantities. Jensen Hughes shall not approve means, methods or procedures of construction or installation; nor shall they review for safety precautions.

In the event that the Contractor’s submittal package is required to be revised and re-submitted more than once due to nonconformance with this specification, illegibility of the submittal, incomplete submittals, noncompliance with the referenced local, state and national Codes, Standards and Regulations or nonconformance with pertinent documentation relative to the project, the Contractor may be held responsible for fees associated with additional engineering review services.

6.0 INSURANCE
The vendor shall maintain and keep in force such comprehensive general liability insurance as shall protect them from claims which may arise from operations under any contract entered into with the East Providence

Jensen Hughes
StudioJAED Architects & Engineers
The amounts of insurance shall be not less than $1,000,000.00 combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death.

The East Providence School Department, City of East Providence and Jensen Hughes shall be named as additional insured on the vendor's General Liability Policy.

The vendor shall maintain and keep in force such Workers' compensation insurance limits as required by the statutes of the State of Rhode Island, and Employer's Liability with limits no less than $500,000.

7.0 ACKNOWLEDGEMENT OF RISK AND HOLD HARMLESS AGREEMENT

In addition to the indemnity provisions specified in the Contract Documents and to the fullest extent permitted by law, the selected bidder, its officers, agents, servants, employees, parents, subsidiaries, partners, officers, directors, attorneys, insurers, and/or affiliates (Releasers) agree to release, waive, discharge and covenant not to sue the East Providence School Department, City of East Providence, its officers, agents, servants or employees (Releasees) from any and all liability, claims, cross-claims, rights in law or in equity, agreements, promises demands, actions and causes of action whatsoever arising out of or related to any loss, damage, expenses (including without limitation, all legal fees, expenses, interest and penalties) or injury (including death), of any type, kind or nature whatsoever, whether based in contract, tort, warranty, or other legal, statutory, or equitable theory of recovery, which relate to or arise out of the Releasers use of or presence in and/or on East Providence School Department and/or City of East Providence property. The Releasers agree to defend, indemnify and hold harmless the Releasees from (a) any and all claims, loss, liability, damages or costs by any person, firm, corporation or other entity claiming by, through or under Releasers in any capacity whatsoever, including all subrogation claims and/or claims for reimbursement, including any court costs and attorneys fees, that may incur due to Releasers use of or presence in and on East Providence School Department and/or City of East Providence property; and (b) any and all legal actions, including third-party actions, cross-actions, and/or claims for contribution and/or indemnity with respect to any claims by any other persons, entities, parties, which relate to or arise out of Releasers use of or presence in and on East Providence School Department and/or City of East Providence property.

The Releasers acknowledge the risks that may be involved and hazards connected with use of or presence in and on East Providence School Department and/or City of East Providence property but elect to provide services under any contract with the East Providence School Department and/or City of East Providence with full knowledge of such risks. Releasers also acknowledge that any loss, damage, and/or injury sustained by Releasers are not covered by Releasees insurance. Releasers agree to become fully aware of any safety risks involved with the performance of services under any contract with the East Providence School Department and/or City of East Providence and any safety precautions that need to be followed and agree to take all such precautions. The duty to indemnify and/or hold harmless the East Providence School Department and/or City of East Providence shall not be limited by the insurance required by the Contract Documents.
8.0 ADDITIONAL INSURANCE REQUIREMENTS

In addition to the insurance provisions in the Contract Documents, the liability insurance coverage, except Professional Liability, Errors and Omissions or Workers' Compensation insurance required for performance of a contract with the East Providence School Department and/or City of East Providence shall include the East Providence School Department, City of East Providence, its divisions, officers and employees, the Architect and Project Manager as Additional Insureds but only with respect to the selected bidder’s activities under the contract. The insurance required through a policy or endorsement shall include:

- a Waiver of Subrogation waiving any right to recovery the insurance company may have against the East Providence School Department and/or City of East Providence; and
- a provision that the selected vendor’s insurance coverage shall be primary with respect to any insurance, self-insurance or self-retention maintained by the East Providence School Department and/or City of East Providence and that any insurance, self-insurance or self-retention maintained by the East Providence School Department and/or City of East Providence shall be in excess of the selected vendor’s insurance and shall not contribute.

There shall be no cancellation, material change, potential exhaustion of aggregate limits or non-renewal without thirty (30) days written notice from the selected vendor or its insurer(s) to the East Providence School Department. Any failure to comply with the reporting provision of this clause shall be grounds for immediate termination of the contract with the East Providence School Department and/or City of East Providence.

Insurance coverage required under the contract shall be obtained from insurance companies acceptable to the East Providence School Department. The selected vendor shall pay for all deductibles, self-insured retentions and/or self-insurance included hereunder.

The East Providence School Department reserves the right to consider and accept alternative forms and plans of insurance or to require additional or more extensive coverage for any individual requirement.

9.0 STATE AND FEDERAL TAXES

The City is exempt from the payment of the Rhode Island Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30, Paragraph 1, as amended.

The City is exempt from the payment of any excise tax or federal transportation taxes. The price bid must be exclusive of taxes and will be so construed.

10.0 PROPERTY LOST, DAMAGED OR DESTROYED

Any property or work to be provided by bidder will remain at the bidder's risk until written acceptance by the East Providence School Department and the bidder will replace, at bidder's expense, all property or work lost, damaged or destroyed by any cause whatsoever.

11.0 CLOSEOUT

Final payment will not be received by the Contractors until the window installation has been approved by the Local Authority, all miscellaneous “punch list” items are addressed, closeout documentation has been received by the Owner and Owner’s Project Manager.
12.0 PROPOSAL CONTENT AND ORGANIZATION

Pricing must include all costs as specified in this solicitation. Pricing for this proposal must be indicated on the Bid Form in Section 14.0 of this document and must be submitted in a separate, sealed envelope labeled as previously stated above.

All Bid Forms must be signed.

Bidders must include on the Bid Form a list of at least four (4) references with whom they have contracted to do similar work by including the company name, telephone number, contact person, and number of years they have served this customer.

Bidders must also include an overview of their company's experience including, but not limited to, the number of years the company has been providing these services, the size of the company (including the number of employees and locations), a description of work undertaken that is similar to what is being requested in this RFP, and, if applicable, certifications that show a knowledge of equipment that would be serviced or provided under this contract.

If any subcontractors are to be used in the performance of any work contracted for under this RFP, please list their name(s), contractor license #, address and phone number, and specific description of the subcontract work to be performed.

Bidders must include a project schedule highlighting key project milestones and completion by the substantial and final completion dates identified in Section 4.0.

Four (4) copies of your proposal, one (1) original and three (3) copies, must be submitted at the time of submission. Proposals must be in the following format:

- Bid Form Company overview
- Length of time your firm has been in business
- Length of time at current address

All licensing (List types and business license number(s)), certification and permits as required in the Scope of Work

Bidders must include a completed draft of the State of Rhode Island Minority Business Enterprise Plan form. See Specification Section 00 73 00.

Please state any and all additions, deletions, and exceptions, if any, that you are taking to any portion of this proposal. If not addressed specifically, the East Providence School Department assumes that the bidder will adhere to all terms and conditions listed in this RFP.
13.0 PROPOSAL EVALUATION CRITERIA

The evaluation of proposals will be conducted in an expeditious time frame convenient to the East Providence School Department.

The East Providence School Department reserves the right to award on the basis of cost alone, accept or reject any or all proposals, and to otherwise act in its best interest. Further, the East Providence School Department reserves the right to waive irregularities it may deem minor in its consideration of proposals.

Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. The East Providence School Department may elect to require presentations(s) by vendors in consideration for award.

Proposals will be evaluated in two (2) phases:

1. The first phase is an initial review to determine if the proposal, as submitted, is complete. To be complete, a proposal must meet all the requirements of this RFP.

2. The second phase is an in-depth analysis and review based on criteria below and their associated weights. The following detailed criteria will be utilized in the evaluation procedure:

   a. **Relevant Experience, Qualifications and Compliance with bidding requirements**: The bidder should show previous project experience in East Providence and other similar type facilities as it relates to the scope of work outlined in the bid documents. The bidder should show previous experience related to working in occupied buildings during the duration of construction. Where applicable, previous project experience for the East Providence School Department should be highlighted. The bidder should provide documentation indicating that all applicable state licenses are in good standing. The bidder should provide the length of time that the organization has been in business as well as any other names that were previously utilized. The bidder should submit a proposed project schedule as well as principals and/or project managers that will be utilized on this project. The bidder should provide any additional information that illustrates the ability to perform this scope of work, in accordance with all codes and standards and in the allocated project schedule duration.

   b. **References**: The bidder should provide a minimum of four (4) references that represent clients that the bidder has previously worked with that can attest to the bidder’s work product, professionalism and timeliness. The references provided should represent clients with projects similar scopes to those listed in the bid documents. References that illustrate the bidder’s experience in educational environments in occupied buildings are strongly encouraged.

   c. **Cost**: The bidder should provide a firm-fixed fee for the scope of work illustrated in the bid documents. The bidder with the low bid while also providing all documents required of the bid documents will receive the full 40% of the cost component. All other bidders will be provided with a pro-rated value for the cost component of the bid evaluation.

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighted Value</th>
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<tbody>
<tr>
<td>Relevant Experience, Qualifications and Compliance with bidding requirements</td>
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</tr>
<tr>
<td>References</td>
<td>30%</td>
</tr>
<tr>
<td>Cost</td>
<td>40%</td>
</tr>
</tbody>
</table>

In the event that the East Providence School Department requires further information and/or a demonstration of any equipment or process offered in any proposal, all vendors asked for same will do so at no cost to the East Providence School Department.
14.0 BID FORM

Administrative Building Roof & Metal Fascia Replacement Project

Date: ________________________________

Submitted By: ________________________________
(Include Name, Address and Telephone No.):

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Name and Remittance Address that will appear on Invoices:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Physical Address of Business:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

General Information
Is your firm a sole proprietorship doing business under a different name? _____ Yes _____ No
If yes, please indicate sole proprietorship, a name, and the name you are doing business under.
________________________________________________________________________
________________________________________________________________________

Is your firm incorporated? _____ Yes _____ No
Will any of the work spelled out in this bid be outsourced? _____ Yes _____ No
If so, please explain below:
________________________________________________________________________
________________________________________________________________________
Have you or your firm been subject to suspension, debarment or criminal conviction by the East Providence School Department and/or City of East Providence, the State of Rhode Island, or any other jurisdiction?
Yes:__________  No:__________

Have the East Providence School Department and/or City of East Providence and/or the State of Rhode Island ever terminated contracts with your firm for cause?
Yes:__________  No:__________

Has your firm ever withdrawn from a contract with the East Providence School Department and/or City of East Providence and/or the State of Rhode Island during its performance?
Yes:__________  No:__________

Have you or your firm been involved in litigation against the East Providence School Department and/or City of East Providence and/or the State of Rhode Island.
Yes:__________  No:__________

If you answered yes to any of the foregoing, please explain the circumstances below. If you or your firm has been involved in litigation against the East Providence School Department and/or City of East Providence and/or the State of Rhode Island, please include the case caption, case number and status. (If more space is needed, please attach separate sheet and submit with the bid.)

________________________________________________________________________________________________________

________________________________________________________________________________________________________

________________________________________________________________________________________________________

________________________________________________________________________________________________________

Liquidated Damages:
The contractor acknowledges that liquidated damages will be applicable for failure by the contractor to meet the substantial completion date of **November 9, 2022**, and/or the final completion date of **December 14, 2022**. Liquidated damages will be assessed in the amount of $2,000 per day.

Initial: ________________________________

Addenda:
The following Addenda have been received. The noted modifications to the Bidding Documents have been considered and all costs are included in the Bid Sum.

Addendum #1, Dated: ________________________________

Addendum #2, Dated: ________________________________

References:
Please list at least four (4) entities with whom you have contracted to provide similar services. Preferably, references should be municipalities or State agencies or other public work; a website address should be included if available.
### Reference #1
- **Company Name:**
- **Contact Person:**
- **Telephone Number:**
- **Email Address:**
- **Project Contract Dates:**

### Reference #2
- **Company Name:**
- **Contact Person:**
- **Telephone Number:**
- **Email Address:**
- **Project Contract Dates:**

### Reference #3
- **Company Name:**
- **Contact Person:**
- **Telephone Number:**
- **Email Address:**
- **Project Contract Dates:**

### Reference #4
- **Company Name:**
- **Contact Person:**
- **Telephone Number:**
- **Email Address:**
- **Project Contract Dates:**
Administrative Building Roof & Metal Fascia Replacement Proposal

Having examined the reference RFP and its applicable documents, we propose to enter into a contract to perform services per the bid specifications for the costs listed below:

A. BASE BID

Following careful review of the Contract Documents and consisting of Instructions to Bidders, all drawings and specifications, all addenda as specified below, and having examined the site to develop a familiarization with the working conditions, the undersigned proposes to furnish materials and provide labor to perform construction work as indicated with a 100% performance bond to complete the Administrative Building Roof & Metal Fascia Replacement Project for the stipulated sum listed below.

**Administrative Building Roof & Metal Fascia Replacement Project**

$[Redacted]

*Written Proposal Value:*

The above fees exclude the fee associated with the scope of work indicated below as part of the UNIT COST BID. Undersigned agrees above stipulated sum is firm price including applicable taxes and is not subject to extras or escalator clauses.
B. UNIT COST BID

This section is not used.

C. ADD ALTERNATE

This section is not used.

D. DEDUCT ALTERNATE

This section is not used.

E. ADDENDA

This section is not used.

F. BID BOND/PERFORMANCE AND PAYMENT BOND

Cost for providing Performance and Payment Bond & Bid Bond:
Add % of Total Construction Value from $_________ to maximum of $_________.
Add % of next Total Construction Value from $_________ to maximum of $_________.
Add % of next Total Construction Value from $_________ to maximum of $_________.

Jensen Hughes
00 10 00 - 13
SOLICITATION
StudioJAED Architects & Engineers
G. LABOR AND MATERIAL RATES

Labor: Unit rates are to be listed for major trades such as, but not limited to, abatement, carpenters, laborers, masons, heavy equipment operators, operators, electricians, HVAC technicians, Foreman/Supervisor for each trade, site superintendent and any other major trade employed in the completion of the Work. Labor rates shall include all overhead, profit, insurance and supervision costs, and shall not be subject to any further markups when utilized in the computation of a Change Order amount. The Owner reserves the right to request additional labor rates. Use additional pages if space provided below is not sufficient.

<table>
<thead>
<tr>
<th>Trade: Laborer Foreman Rate:</th>
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<td>Trade: Gypsum (Tape/ sand) Foreman Rate:</td>
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<td>$ _____________ per hour</td>
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Include additional trade labor rates below:

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<th>Trade: ___________________________</th>
<th>Rate: $ _____________ per hour</th>
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<td>Trade: ___________________________</td>
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Jensen Hughes
StudioJAED Architects & Engineers
H. FEE FOR PROJECT CHANGES

The total mark-up for each change shall not exceed 15% (10% for overhead + 5% for profit). For changes where the work is performed totally by the Undersigned Bidder’s direct forces, the 15% mark-up shall be assigned to the Undersigned Bidder as the prime contractor. For work performed by a subcontractor(s), a maximum of 10% mark-up will be assigned to all subcontractors and/or sub-subcontractors performing work and 5% will be assigned to the Undersigned Bidder and prime contractor. Unit labor costs are all-inclusive of all OH&P and shall not be subject to further mark-up. The change order mark-ups include all overhead, coordination, bond, insurance, profit and supervision costs, and these items shall not be subject to any further markups when utilized in the computation of a Change Order amount.

For changes which add additional time to the contract completion date, the General Conditions cost impact shall be as listed on the schedule of unit rates above. The unit rate for the general conditions associated with the time extension shall be inclusive of all direct and indirect costs and fees, including but not limited to all overhead, coordination, bond, insurance, cleaning, site support, management, profit and supervision costs, and shall not be subject to any further markups when utilized in the computation of a Change Order. Unit rate shall be for one (1) additional work day.
I. OTHER CERTIFICATIONS

Undersigned agrees to execute Contract for above work for the above stipulated sum provided that he be notified of acceptance of bid within ninety (30) days after time set for the receipt of bids. Undersigned agrees to execute contract and deliver it to the Owner.

Undersigned agrees by submission of this bid that the bidder is the only interested party submitting this bid, that the Contract Documents are incorporated herein, that there is no collusion, and the contract will not be assigned with written consent of the Owner.

Undersigned certifies that included within their bid are only employees and subcontractor employees that will be employed at the worksite that have successfully completed and obtained certification in a course in construction safety and health approved by the United States Occupational Safety and Health Administration as required by the laws of the state.

Undersigned certifies, under penalty of perjury, that to the best of his knowledge and belief that:

The prices in this Bid have been arrived at independently without collusion, consultation, communication or agreement with any other Bidder or competition on any matter whatsoever for the purpose of restricting competition.

Except as may be required by law, prices quoted in this Bid have not been knowingly disclosed prior to the opening of Bids; and

No attempt has been made nor will be made by the Bidder to induce any other person, partnership, or corporation to submit or to refrain from submitting a Bid for this Project.

Undersigned represents to Owner that it has the labor, machinery, equipment, supplies, and credit to meet the schedule completion requirements.

Firm: 

Authorized Representative: 

Title: 

Signature: 

Date: 

(Corp. Seal) (Notary Seal)

END OF SPECIFICATION
SECTION 00 73 00
MINORITY BUSINESS ENTERPRISE REQUIREMENTS AND WOMEN BUSINESS ENTERPRISE PARTICIPATION REQUIREMENTS

Attached (See Appendix A) is the MBE, WBE and/or Disability Business Enterprise Participation Plan form. Bidders are required to complete, sign and submit with their overall proposal in a sealed envelope. Please complete separate forms for each MBE, WBE, and/or Disability Business Enterprise subcontractor/supplier to be utilized on the solicitation.

In accordance with RI Gen. Law § 37-14.1-1, it is the policy of the State of Rhode Island to support the fullest possible participation of firms owned and controlled by minorities (MBEs) and women (WBEs). Pursuant to §§ 37-14.1-2 and 37-14.1-6, MBEs and WBEs shall be included in all state purchasing, including, but not limited to, the procurement of goods, services, construction projects, or contracts funded in whole or in part with state funds, or funds which, in accordance with a federal grant or otherwise, the state expends or administers. MBEs and WBEs shall be awarded a minimum of ten percent (10%) of the dollar value of the entire procurement or project. MBE participation credit shall only be granted for firms duly certified as MBEs or WBEs by the State of Rhode Island, Department of Administration, Office of Diversity, Equity and Opportunity, MBE Compliance Office (MBECO).

The current directory of firms certified as MBEs or WBEs may be accessed at http://odeo.ri.gov/offices/mbeco/mbe-wbe.php or by contacting Ana Pimentel at the MBECO at (401) 574-9145 or via email at Ana.pimentel@doa.ri.gov

END OF SPECIFICATION SECTION
Pursuant to RIGL 37-14.1 as well as the regulations promulgated thereto, the MBE Compliance Office requires that you complete the following table. Please note that these figures will be verified with the MBEs identified. If there are outstanding issues, such as retainage or a dispute, please indicate and attach supporting documentation for same. Also note that copies of invoice and cancelled checks for payment to all MBE subcontractors and suppliers are required.

Contractor/Vendor Name:
Project Name & Location:
Original Prime Contract Amount: $______________

<table>
<thead>
<tr>
<th>MBE/WBE Subcontractor</th>
<th>Original Contract Amount</th>
<th>Change Orders</th>
<th>Revised Contract Value</th>
<th>% Completed To Date</th>
<th>Amount Paid To Date</th>
<th>Amount Due</th>
<th>Retainage %</th>
<th>Retainage Amount</th>
<th>Explanation</th>
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I declare, under penalty of perjury, that the information provided in this verification form and supporting documents is true and correct.

__________________________________________  ________________
Signature                                      Date

__________________________________________
Printed Name

Notary Certificate:

Sworn before me this _______ day of _____________, 20__.

__________________________________________  Commission Expires
Notary Signature
Company Name: __________________________________________________________

Representative’s Name who administers MBE Program: __________________________

Street Address: __________________________________________________________

City, State, Zip: __________________________________ Telephone: __________________

Email: __________________________ Project Location: __________________________

Bid or Project #: __________________________ Date Bid Opened: __________________

Description of Work: _____________________________________________________

Contract Value: __________________________ MBE % Assigned: __________________

Total # of All Subcontractors/Suppliers used: _____  # of MBE Subcontractors/Suppliers used: _____

<table>
<thead>
<tr>
<th>Subcontractor / Supplier</th>
<th>Dollar Award</th>
<th>Scope/Description of Work</th>
<th>RI Certified M/WBE</th>
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Please note that all MBE/WBE firms must be certified by the RI MBE Compliance Office, and that MBE/WBE firms must self-perform 100% of the work with their own forces or subcontract to another RI certified MBE/WBE in order to receive participation credit. Vendors may count 60% of expenditures for materials and supplies obtained from an MBE certified as a regular dealer/supplier, and 100% of such expenditures obtained from an MBE/WBE certified as a manufacturer. For firms certified as a broker, you may receive MBE participation credit only for the fees and commissions charged for the procurement of the good and materials, but not the cost of the materials themselves.

The above referenced contract will not be released until this plan has been approved by the Director of the Department of Administration or its designee.

For assistance and advice in identifying MBE/WBE firms, please call the Minority Business Enterprise Compliance Office at (401) 574-8670. The directory of all certified MBE firms is also located at www.mbe.ri.gov.

Signature of Authorized Agent of Business: __________________________ Date: __________________

Send Completed Form to: Dorinda Keene, Assistant Administrator - MBE Office of Diversity, Equity and Opportunity (ODEO) Minority Business Enterprise Compliance Office One Capitol Hill, 3rd Floor Providence, RI 02908 Phone: (401) 574-8670 Dorinda.Keene@doa.ri.gov
**SECTION 00 95 00**

PREVAILING WAGE RATES

**Prevailing Wage** is the cost per hour, for labor wages set by law, involving construction work for various and related trades. It involves a bidding process for contractors that will use federal, state or municipal monies (tax payer dollars) for work on projects that will be used for the public, by the public.

The successful contractor and sub-contractor shall comply with the provisions of Rhode Island General Laws (RIGL) Chapter 37 pertaining to the “Prevailing Wage Laws” for all municipal funded projects in excess of one thousand ($1,000) dollars. The RI Department of Labor has accepted the prevailing wage rates as determined by the applicable Davis Bacon Wage Determination rate schedule found online at the U.S. System for Award Management (SAM) to determine the prevailing wage rates. A copy of the most current wage decision pertaining to this bid is available from the Director of Labor at 401-462-8580, option #7 or on the web site: [https://dlt.ri.gov/regulation-and-safety/prevailing-wage/prevailing-wage-forms-and-publications](https://dlt.ri.gov/regulation-and-safety/prevailing-wage/prevailing-wage-forms-and-publications)

As required under RIGL 37-13-13, the successful contractor must certify and submit weekly payroll forms to the Finance Director’s Office.

END OF SPECIFICATION SECTION
SECTION 01 10 00
SUMMARY OF WORK

1.0 GENERAL

1.1 Section Includes

A. Contract Description.
B. Work Covered by Contract.
C. Work under other Contracts.
D. Use of Premises.
E. Contractor Use of Premises.
F. Work Restrictions.
G. Work Sequence.
H. Owner Occupancy.

1.2 Contract Description

A. Work of the Project includes the School Department Administrative Building Roof & Metal Fascia Replacement Project.
B. Perform the Work of the building under a single Contract under a stipulated sum Contract with the Owner in accordance with the Conditions of Contract.
C. Project will be constructed under a single prime contract.

1.3 Work Covered by Contract

A. The Work under this Contract includes:

1. Provide all labor, material, tools, transportation, equipment, supplies and services to replace the existing roof and metal fascia at the School Department Administrative Building in accordance with Rhode Island State Building Code (RISBC), Rhode Island State Energy Conservation Code (RISECC), and all local applicable requirements.
   a. Equipment as identified in these Contract Documents.
2. Preparation of shop drawings, product data, record drawings, and close out documents in accordance with these Contract Documents.
3. All other items described in the Contract Documents.
1.4 **Work Under Other Contracts**

A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Coordinate the Work of this Contract with work performed under separate contracts.

1.5 **Use of Premises**

A. Contractor shall have limited use of premises for construction operations as indicated on the Contract Documents.

B. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
   1. Limits: Confine construction operations to areas indicated on Drawings by Contract limits.
   2. Owner Occupancy: Owner will occupy Project Site during construction.
   3. Driveways and Entrances: Keep driveways loading areas and entrances serving premises clear and available to Owner, Owner’s employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
      a. Schedule deliveries to minimize use of building entrances and driveways.
      b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.6 **Contractor Use of Premises**

A. Limit use of premises for Work and for construction operations, to allow for work by other Contractors if necessary.

B. Limit access to site as directed by Owner’s Representative.

1.7 **Work Restrictions**

A. The Work can be completed during normal business hours or 2\textsuperscript{nd} shift (3:00pm – 11:30pm) as desired. All work must be coordinated so no disruption occurs to ongoing business and other activities within the building. All work must be coordinated with School Department Facilities Director in advance. The Contractor must maintain continued work activity from the start of the project until completion, except on state of Rhode Island recognized holidays.

B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
   1. Notify Engineer and Owner not less than 3 days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without Owner’s written permission.
1.8 Work Sequence

A. Construct the Work to accommodate the Owner's occupancy requirements. Coordinate the construction schedule and operations with the Owner and Engineer.

1.9 Owner Occupancy

A. The Owner intends for the building to be occupied throughout construction.
B. Cooperate with the Owner to minimize conflict, and to facilitate the Owner’s operations.
C. Schedule the Work to accommodate Owner occupancy.

END OF SPECIFICATION SECTION
SECTION 01 11 00
GENERAL REQUIREMENTS - SUMMARY

1.0 GENERAL

1.1 Summary of Work
A. Project is to include, but not limited to, all labor and materials to complete the scope of work indicated on the design drawings and specifications.

1.2 Contract Method
A. Construct the work under a single lump sum contract.

1.3 Background Checks
A. There are a growing number of Rhode Island laws that require individuals to provide a fingerprint-based national background for purposes of employment, operating a business or serving as a caregiver. Each statute dictates where individuals may obtain the national background checks: the Office of Attorney General, the Rhode Island State Police, and/or your local police department.

B. Vendors must be sure to register their company with the RI Office of Attorney General (401-274-4400) before sending employees for their fingerprint-based national background check.

C. The following must obtain national background check at the Office of Attorney General Customer Service Center, located at 4 Howard Avenue, Cranston, RI.
   1. Firefighter
   2. Medical marijuana caregiver
   3. Dept. of Child Youth and Families (DCYF) employees
   4. Public and private school employees (full time, part time, substitute teacher, school bus drivers and monitors)
   5. Third party public and private school vendors

D. Out of State: If you live out of state and require a national background check, please download and complete the forms at the bottom of http://www.riag.ri.gov/homeboxes/BackgroundChecks.php and submit with your fingerprints to the Office of Attorney General.

1.4 Existing Conditions
A. The contractor shall familiarize themselves with the building, existing conditions and other applicable information prior to the installation. Any discrepancies are to be reported to the Owner immediately.
1.5 Substitutions

A. All substitutions are to be made within 15 days after the Owner/Contractor Agreement is executed. All substitutions will be considered only when a product becomes unavailable due to no fault of the Contractor.

B. Document each request with complete data substantiating compliance of the proposed substitution with the Contract Documents.

C. Request constitutes a representation that the Contractor:
   1. Has reasonably investigated the proposed product and determined that it meets or exceeds the specified product.
   2. Will provide the same warranty for substitution as for the specified product.
   3. Will coordinate the installation and make other changes which may be required for Work to be completed in all respects.
   4. Waive claims for additional costs, which may occur.
   5. Substitutions will not be considered when they are first indicated on shop drawings or submittals without prior approval.
   6. Owner will determine the acceptability of proposed substitutions and will notify the Contractor of acceptance or rejection in writing within a reasonable time period. Decisions of the Owner as to the acceptability of the substitutions are final.

1.6 Temporary Facilities

A. If the existing building is to be used as a construction office. The location of the construction office is to be determined but will be in the immediate vicinity of the construction area.

1.7 Meetings

A. Pre-Construction Kick-Off Meeting: Following execution of the Construction Contract, the Contractor is to attend a Pre-Construction meeting to discuss the use of the site, project schedule, labor requirements and other issues related to the project.

2.0 PRODUCTS

Not Applicable

3.0 EXECUTION

Not Applicable

END OF SPECIFICATION
SECTION 01 11 15
VOLATILE ORGANIC COMPOUND (VOC) LIMITS FOR ADHESIVES, SEALANTS, PAINTS AND COATINGS

1.0 GENERAL

1.1 Summary
A. The specification section includes requirements for volatile organic compound (VOC) content in adhesives, sealants, paints and coatings used for this project.

1.2 Related Sections
A. The following Specification Sections contain requirements that relate to this Specification Section:
   1. Section 01 11 00 – General Requirements Summary
   2. Section 09 91 13 – Exterior Painting

1.3 General Requirements
A. The Contractor is required to implement practices and procedures to meet the project's environmental goals. Specific project goals which may impact this area of work are listed in the applicable paragraphs of this specification section. The Contractor shall ensure that the requirements related to these goals, as defined in the sections below and in the related sections of the Contract Documents, are implemented to the fullest extent feasible.

1.4 References

1.5 VOC Requirements for Interior Adhesives
A. The volatile organic compound (VOC) content of adhesives, adhesive bonding primers or adhesive primers used in this project shall not exceed the limits defined in Rule 1168 – “Adhesive and Sealant Applications.”
B. The VOC limits defined by SCAQMD are as follows. All VOC limits are defined in grams per liter, less water and less exempt compounds.
1.6 General

A. Unless otherwise specified below, the VOC content of all adhesive, adhesive bonding primers and adhesive primers are to be in excess of 250 grams per liter.

B. For specified building construction related applications, allowable VOC content is as follows:

1. Architectural Applications
   a. Indoor carpet adhesive 50
   b. Carpet pad adhesive 50
   c. Wood floor adhesive 100
   d. Rubber floor adhesive 60
   e. Subfloor adhesive 50
   f. Ceramic tile adhesive 65
   g. VCT and asphalt tile adhesive 50
   h. Drywall and panel adhesive 50
   i. Cove base adhesive 50
   j. Multipurpose construction adhesive 70
   k. Structural glazing adhesive 100

2.0 PRODUCTS

Not Applicable

3.0 EXECUTION

Not Applicable

END OF SPECIFICATION
SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

1.0 GENERAL

1.1 Section Includes

A. Contingency allowances.
B. Schedule of values.
C. Applications for payment.
D. Sales tax exemption.
E. Change procedures.
F. Defect assessment.
G. Alternates.

1.2 Contingency Allowances

A. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, bonding, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from a Contingency Allowance.
B. Funds will be drawn from the Contingency Allowance only by Change Order.
C. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

1.3 Schedule of Values

A. Submit Schedule of Values in duplicate, one copyrighted original and one copy, prior to commencement of work.
B. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the major specification Section. Organize the Schedule of Values by trade and to reflect the general organization of the work. The Schedule of values and the Project Schedule must reflect each other in organization and break down.
C. Include in each line item, the amount of Allowances specified in this Section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
D. Include in the schedule of Values the following Specific Line Items:
   1. Mobilization
   2. Demobilization
   3. Builder’s Risk Insurance
4. Bond 
5. Coordination Drawings 
6. Scheduling 
7. Project Photographs 
8. Preconstruction Video, Survey, Photographs 
9. Mock ups / Bench Marks for each Trade 
10. Field Engineering, Bench Marks 
11. Daily Clean up in the building 
12. Site Clean up 
13. Safety Compliance 
14. GC Home office Overhead and Project Profit (paid proportionally to the percent complete of the project) 
15. Full Time Superintendent 
16. Field office rental and operation 
17. Monthly Progress Drawing updates 
18. Dumpsters / Trash removal 
19. Winter protection 
20. Temporary Heat 
21. Testing Allowance 
22. Contingency Allowance 
23. Any other Allowances from the Bid Form 
24. Warrantee Retainage 
25. Project Close out (Beyond As built Drawings) 

E. Revise schedule to list approved Change Orders, with each Application for Payment. 

1.4 Applications for Payment 

A. Submit each application on an original copyrighted AIA Form G702 - Application and Certificate for Payment and AIA G703 - Continuation Sheet, accompanied by three (3) copies. 

1. Individually sign and notarize, and emboss with notary's official seal, the original and each of the three (3) copies. 
2. Applications not including original copyrighted AIA G702, and G703 Forms, will be rejected, and returned for re-submittal. 
3. Applications not properly signed and notarized will be rejected, and returned for re-submittal. 

B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment. 

C. Provide one (1) hard copy and one (1) electronic copy of the updated construction schedule with each Application for Payment submission. 

1. Provide a statement signed by the Contractor's firm principal certifying that there are no unidentified outstanding claims for delay. 

D. Include with each monthly Application for Payment, following the first application, one (1) copy of the Certified Monthly Payroll Record for the previous month's pay period. 

E. Payment Period: Submit at intervals stipulated in the Agreement. 

F. Submit with transmittal letter as specified for Submittals. 

G. Substantiating Data: When the Engineer requires substantiating information, submit data justifying dollar amounts in question. Include the following with the Application for Payment:
1. Record Documents as specified, for review by the Owner which will be returned to the Contractor.
2. Affidavits attesting to off-site stored products.
3. Construction progress schedules, revised and current.

1.5 Sales Tax Exemption

A. Owner is exempt from sales tax on products permanently incorporated in Work of the Project.
   1. Obtain sales tax exemption certificate number from Owner.
   2. Place exemption certificate number on invoice for materials incorporated in the Work of the Project.
   3. Furnish copies of invoices to Owner.
   4. Upon completion of Work, file a notarized statement with Owner that all purchases made under exemption certificate were entitled to be exempt.
   5. Pay legally assessed penalties for improper use of exemption certificate number.

1.6 Change Procedures

A. Submittals: Submit name of the individual authorized to receive change documents and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.

B. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum or Contract Time by issuing supplemental instructions on AIA Form G710.

C. The Engineer may issue a Proposal Request which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required, and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within fifteen (15) days.

D. The Contractor may propose changes by submitting a request for change to the Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation, and a statement describing the effect on Work by separate or other Contractors. Document any requested substitutions in accordance with Section 01 60 00.

E. Stipulated Sum Change Order: Based on Proposal Request, and Contractor's fixed price quotation, or Contractor's request for a Change Order as approved by Engineer.

F. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute the Work under a Construction Change Directive. Changes in the Contract Sum or Contract Time will be computed as specified for a Time and Material Change Order.

G. Construction Change Directive: The Engineer may issue a directive, on AIA Form G713 Construction Change Directive signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in the Contract Sum or Contract Time. Promptly execute the change.
H. Time and Material Change Order: Submit an itemized account and supporting data after completion of the change, within the time limits indicated in the Conditions of the Contract. The Engineer will determine the change allowable in the Contract Sum and Contract Time as provided in the Contract Documents.

I. Maintain detailed records of work done on a Time and Material basis. Provide full information required for an evaluation of the proposed changes, and to substantiate costs for the changes in the Work. Submit form “Breakdown of Hourly Rates” attached at the end of this section.

J. Document each quotation for a change in cost or time with sufficient data to allow an evaluation of the quotation. Provide detailed breakdown of costs and estimates for labor and materials including a detailed breakdown for subcontractor's or vendor's Work. Include copies of written quotations from subcontractors or vendors.

K. Change Order Forms: AIA G701 Change Order.

L. Execution of Change Orders: The Engineer will issue Change Orders for signatures of the parties as provided in the Conditions of the Contract.

M. Correlation of Contractor Submittals:
   1. Promptly revise the Schedule of Values and the Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum. Promptly revise progress schedules to reflect any change in the Contract Time, revise sub-schedules to adjust times for any other items of work affected by the change, and resubmit.
   2. Promptly enter changes in the Project Record Documents.

1.7 Defect Assessment

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

B. If, in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer will direct an appropriate remedy or adjust payment.

C. The defective Work may remain, but the unit sum will be adjusted to a new sum at the discretion of the Engineer.

D. The defective Work will be partially repaired to the instructions of the Engineer, and the unit sum will be adjusted to a new sum at the discretion of the Engineer.

E. The individual Specification Sections may modify these options or may identify a specific formula or percentage sum reduction.

F. The authority of the Engineer to assess the defect and identify a payment adjustment, is final.

G. Non-Payment for Rejected Products: Payment will not be made for rejected products for any of the following:
   1. Products wasted or disposed of in a manner that is not acceptable.
   2. Products determined as unacceptable before or after placement.
   3. Products not completely unloaded from the transporting vehicle.
   4. Products placed beyond the lines and levels of the required Work.
   5. Products remaining on hand after completion of the Work.

END OF SPECIFICATION
SECTION 01 30 00
ADMINISTRATIVE PROCEDURES

1.0 GENERAL

1.1 Section Includes

A. Site administration

B. Construction progress schedules.

C. Coordination and project conditions.

D. Preconstruction meeting.

E. Site mobilization meeting.

F. Progress meetings.

G. Pre-installation meeting.

1.2 Site Administration

A. Maintain a daily attendance log to include the names of all project employees and guests to the site. The log sheet or sheets must clearly indicate the Project Name, and the name of the General Contractor. Each line on the log should allow for the name of each employee, the employee’s job title (use terminology used by prevailing wage job title), and the name of that employee’s employer. Each guest signing the log should indicate a brief description of the reason for the visit, and that guest’s employer or organization.

1.3 Coordination and Project Conditions

A. Coordinate the scheduling, submittals, and the Work of the various Sections of the Project Manual to ensure an efficient and orderly sequence of the demolition elements.

B. Coordinate the completion and cleanup of the Work of the separate Sections in preparation for Substantial Completion.

C. Coordinate access to the site for correction of defective Work and the Work not in accordance with the Contract Documents.

1.4 Construction Progress Schedules

A. Submit initial progress schedule in duplicate within 15 days after date of established notice to proceed for Engineer to review.

B. Revise and resubmit as required.

C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
D. Submit a computerized chart with separate line for each major section of Work or operation, identifying first workday of each week.

E. Show complete sequence of construction activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.

F. Indicate estimated percentage of completion for each item of Work at each submission.

G. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by the Owner and under Allowances.

1.5 Preconstruction Meeting

A. The Engineer will schedule a meeting after contract award.

B. Attendance Required: Owner, Engineer, and Contractor.

C. Agenda:
   1. Execution of the Owner-Contractor Agreement.
   2. Submission of the executed bond and insurance certificates.
   4. Submission of a list of Subcontractors, a list of products, schedule of values, and a progress schedule.
   5. Designation of the personnel representing the parties in the Contract, and the Engineer.
   6. The procedures and processing of the field decisions, submittals, substitutions, applications for payments, proposal requests, Change Orders, and Contract closeout procedures.
   7. Scheduling.

D. Record the minutes and distribute copies within two days after the meeting to the participants, with two copies to the Engineer, the Owner, the participants, and those affected by the decisions made.

1.6 Site Mobilization Meeting

A. The Contractor will schedule a meeting at the Project site prior to the Contractor's occupancy.

B. Attendance Required: The Owner, Engineer, Contractor, the Contractor's Superintendent, and major Subcontractors.

C. Agenda:
   1. Use of the premises by the Contractor.
   2. The Owner's requirements and partial occupancy.
   3. Construction facilities and controls provided by the Owner.
   4. Temporary utilities provided by the Owner.
   5. Security and housekeeping procedures.
   7. Application for payment procedures.
   8. Procedures for testing.
   9. Procedures for maintaining the record documents.

D. Record the minutes and distribute the copies within two days after the meeting to the participants, with two copies to the Engineer, Owner, participants, and those affected by the decisions made.
1.7 Progress Meetings

A. Schedule and administer the meetings throughout the progress of the Work at maximum monthly intervals.

B. Make arrangements for the meetings, prepare the agenda with copies for the participants, and preside at the meetings.

C. Attendance Required: The job superintendent, major subcontractors and suppliers, the Owner, Engineer, as appropriate to agenda topics for each meeting.

D. Agenda:
   1. Review the minutes of previous meetings.
   2. Review of the Work progress.
   3. Field observations, problems, and decisions.
   4. Identification of the problems which impede the planned progress.
   5. Review of the submittals schedule and status of the submittals.
   7. Maintenance of the progress schedule.
   8. Corrective measures to regain the projected schedules.
   9. Planned progress during the succeeding work period.
  10. Coordination of the projected progress.
  11. Maintenance of the quality and work standards.
  12. Effect of the proposed changes on the progress schedule and coordination.
  13. Other business relating to the Work.

E. Record the minutes and distribute the copies within two days after the meeting to the participants, with two copies to the Engineer, Owner, participants, and those affected by the decisions made.

1.8 Pre-Installation Meeting

A. When required in the individual specification Sections, convene a pre-installation meeting at the site prior to commencing the Work of the Section.

B. Require attendance of the parties directly affecting, or affected by, the Work of the specific Section.

C. Notify the Engineer four days in advance of the meeting date.

D. Prepare an agenda and preside at the meeting:
   1. Review the conditions of installation, preparation and installation procedures.
   2. Review coordination with the related work.

E. Record the minutes and distribute the copies within two days after the meeting to the participants, with two copies to the Engineer, Owner, participants, and those affected by the decisions made.

END OF SPECIFICATION
SECTION 01 35 20
INDOOR AIR QUALITY MANAGEMENT

1.0 GENERAL

1.1 Summary

A. Section includes special requirements for Indoor Air Quality (IAQ) management during construction operations.
   1. Control of emissions during construction.
   2. Moisture control during construction.

B. Procedures for testing baseline IAQ. Baseline IAQ requirements specify maximum indoor pollutant concentrations for acceptance of the facility.

1.2 Definitions

A. Definitions pertaining to sustainable development as defined in ASTM E2114.

B. Adequate Ventilation: Ventilation, including, air circulation and air changes, required to cure materials, dissipate humidity, and prevent accumulation of particulates, dust, fumes, vapors or gases.

C. Hazardous Materials: Any material that is regulated as a hazardous material in accordance with 49 CFR 173, requires a Material Safety Data Sheet (MSDS) in accordance with 29 CFR 1910.1200.

D. Indoor Air Quality (IAQ): The composition and characteristics of the air in an enclosed space that affect the occupants of that space. The indoor air quality of a space refers to the relative quality of air in the building with respect to the contaminants and hazards and is determined by the level of indoor air pollution and other characteristics of the air.

E. Interior Final Finishes: Materials and products that will be exposed at interior, occupied spaces including flooring, wallcovering, finish carpentry and ceilings.

F. Packaged Dry Products: Materials and products that are installed in dry form and are delivered to the site in manufacturer’s packaging including carpets, resilient flooring, ceiling tiles and insulation.

G. Wet Products: Materials and products installed in wet form, including paints, sealants, adhesives, special coatings, and other materials which require curing.

1.3 Preconstruction Meeting

A. Following award of Contract and prior to commencement of project work, the Contractor is required to schedule a meeting with the Owner and project team to discuss the proposed IAQ management plan.
1.4 Submittals

A. IAQ Management Plan is to be provided prior to preconstruction meeting and is required to include the following information:
   1. Procedures for control of emissions during construction
   2. Procedures for moisture control during construction

B. Product Data:
   1. Product data for filtration media used during construction and during operations.
   2. Submit air pressure difference maps for mode of operation of HVAC.
   3. Material Safety Data Sheets
   4. Inspection test reports.

2.0 PRODUCTS

Not Applicable

3.0 EXECUTION

3.1 IAQ Management – Emissions Control

A. During construction operations, follow the recommendations in SMACNA IAQ Guidelines for Occupied Buildings under Construction.

B. HVAC Protection
   1. Seal return registers during construction
   2. Provide temporary exhaust during construction operations

C. Source Control – provide low and zero VOC materials as specified.

D. Pathway Interruption – isolate areas of work as necessary to prevent contamination of clean or occupied spaces. Provide pressure differentials, as required, to protect clean or occupied spaces.

E. Housekeeping – during construction, maintain project and building products and systems to prevent contamination of building spaces.

F. Temporary Ventilation – provide and ACH (air changes per hour) of 1.5 or more and as follows:
   1. Provide minimum 48-hour pre-ventilation of packages dry products prior to installation. Remove from packaging and ventilate in a secure, dry and ventilated space.
   2. Provide adequate ventilation during and after installation of interior wet products and interior final finishes.

G. Scheduling – schedule construction operations involving wet products prior to packaged dry products to the greatest extent possible.

H. Flush-Out – After the conclusion of construction, and prior to occupancy, perform a building flush-out by supplying a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area while maintaining an internal temperature of at least 60-degrees F and relative humidity no greater than 60%.

END OF SPECIFICATION
SECTION 01 40 00
QUALITY REQUIREMENTS

1.0 GENERAL

1.1 Section Includes
A. Quality control and control of installation.
B. Verification of Credentials and Licenses.
C. Tolerances
D. References
E. Mock-up requirements.
F. Testing and inspection services.
G. Manufacturers’ field services.

1.2 Quality Control and Control of Installation
A. Monitor a quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of the specified quality.
B. Comply with the manufacturers’ instructions, including each step-in sequence.
C. When the manufacturers’ instructions conflict with the Contract Documents, request a clarification from the Engineer before proceeding.
D. Comply with the specified standards as a minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
E. Perform the Work by persons qualified to produce the required and specified quality.
F. Verify that field measurements are as indicated on the Shop Drawings or as instructed by the manufacturer.
G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 Verification of Credentials and Licenses
A. An element of this oversight process is the verification that persons employed on the project site have appropriate and current credentials and licenses in their possession, at the project site, for the work they are performing.
B. Be forewarned that state resident inspectors will be checking for verification of credentials and licenses of both union and non-union persons, in their onsite inspections.
C. State resident inspectors will also be reviewing Contractor's Certified Monthly Payroll Records for conformance with RI State Prevailing Wage Rate requirements.

D. Those persons without the appropriate credentials and licenses will be subject to dismissal from the project site.

1.4 Tolerances

A. Monitor the fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with the manufacturers' tolerances. When the manufacturers' tolerances conflict with the Contract Documents, request a clarification from the Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

1.5 References

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by the date of issue current on the date of the Contract Documents, except where a specific date is established by code.

C. Obtain copies of the standards where required by the product specification Sections.

D. When the specified reference standards conflict with the Contract Documents, request a clarification from the Engineer before proceeding.

E. Neither the contractual relationships, duties, or responsibilities of the parties in the Contract, nor those of the Engineer, shall be altered from the Contract Documents by mention or inference otherwise in reference documents.

1.6 Mock-Ups

A. Tests will be performed under the provisions identified in this Section and identified in the respective product specification Sections.

B. Assemble and erect the specified items with the specified attachment and anchorage devices, flashings, seals, and finishes.

C. Accepted mock-ups shall be a comparison standard for the remaining Work.

D. Where the mock-up has been accepted by the Engineer and is specified in the product specification Sections to be removed, remove the mock-up and clear the area when directed to do so by the Engineer.

1.7 Testing and Inspection Services

A. The Contractor will submit the name of an independent firm to the Engineer for approval by the Owner, to perform the testing and inspection services.
B. The independent firm will perform the tests, inspections and other services specified in the individual specification Sections and as required by the Engineer.
   1. Laboratory: Authorized to operate in the location in which the Project is located.
   2. Laboratory Staff: Maintain a full time registered Engineer on staff to review the services.
   3. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to either the National Bureau of Standards or to the accepted values of natural physical constants.

C. Testing, inspections and source quality control may occur on or off the project site. Perform off-site testing as required by the Engineer or the Owner.

D. Reports will be submitted by the independent firm to the Engineer and the Contractor, in duplicate, indicating the observations and results of tests and indicating the compliance or non-compliance with Contract Documents.

E. Cooperate with the independent firm; furnish samples of the materials, design mix, equipment, tools, storage, safe access, and the assistance by incidental labor as requested.
   1. Notify the Engineer and the independent firm 24 hours prior to the expected time for operations requiring services.
   2. Make arrangements with the independent firm and pay for additional samples and tests required for the Contractor's use.

F. Testing and employment of the testing agency or laboratory shall not relieve the Contractor of an obligation to perform the Work in accordance with the requirements of the Contract Documents.

G. Re-testing or re-inspection required because of a non-conformance to the specified requirements shall be performed by the same independent firm on instructions by the Engineer.

H. Payment for the re-testing or re-inspection will be charged to the Contractor by deducting the testing charges from the Contract Sum.

I. Agency Responsibilities:
   1. Test samples of mixes submitted by the Contractor.
   2. Provide qualified personnel at the site. Cooperate with the Engineer and the Contractor in performance of services.
   3. Perform specified sampling and testing of the products in accordance with the specified standards.
   4. Ascertain compliance of the materials and mixes with the requirements of the Contract Documents.
   5. Promptly notify the Engineer and the Contractor of observed irregularities or non-conformance of the Work or products.
   6. Perform additional tests required by the Engineer.
   7. Attend the preconstruction meetings and the progress meetings.

J. Agency Reports: After each test, promptly submit two copies of the report to the Engineer and to the Contractor. When requested by the Engineer, provide an interpretation of the test results.

K. Include the following:
   1. Date issued.
   2. Project title and number.
   3. Name of inspector.
4. Date and time of sampling or inspection.
5. Identification of product and specifications section.
6. Location in the Project.
7. Type of inspection or test.
8. Date of test.
9. Results of tests.

L. Limits On Testing Authority:
1. Agency or laboratory may not release, revoke, alter, or enlarge on the requirements of the Contract Documents.
2. Agency or laboratory may not approve or accept any portion of the Work.
3. Agency or laboratory may not assume any duties of the Contractor.
4. Agency or laboratory has no authority to stop the Work.

1.8 Manufacturers’ Field Services

A. When specified in the individual specification Sections, require the material or Product suppliers, or manufacturers, to provide qualified staff personnel to observe the site conditions, the conditions of the surfaces and installation, the quality of workmanship, the start-up of equipment, or test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.

B. Submit the qualifications of the observer to the Engineer 30 days in advance of the required observations. Observer, subject to approval of Engineer.

C. Report the observations and the site decisions or instructions given to the applicators or installers that are supplemental or contrary to the manufacturers’ written instructions.

END OF SPECIFICATION
SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

1.0 GENERAL

1.1 Section Includes

A. Temporary Utilities:
   1. Temporary electricity.
   2. Temporary lighting for construction purposes.
   3. Temporary heating.
   4. Temporary cooling.
   5. Temporary ventilation.
   6. Temporary water service.
   7. Temporary sanitary facilities.

B. Construction Facilities:
   1. Field offices and sheds.
   2. Vehicular access.
   3. Parking.
   4. Progress cleaning and waste removal.

C. Temporary Controls:
   2. Fire detection.
   3. Water control.
   4. Dust control.
   5. Erosion and sediment control.
   6. Noise control.
   7. Pest control.
   8. Pollution control.
   9. Rodent control.

1.2 Summary

A. This section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 Temporary Electricity

A. The Owner will pay the cost of energy used. Exercise measures to conserve energy. Utilize the Owner’s existing power service.

1.4 Temporary Lighting for Construction Purposes

A. Permanent building lighting maybe utilized during construction.

1.5 Temporary Heating
A. Existing facilities shall be used.

1.6 Temporary Cooling
A. Existing facilities shall be used.

1.7 Temporary Ventilation
A. Utilize the existing ventilation equipment. Extend and supplement the equipment with temporary fan units as required to maintain clean air for construction operations.

1.8 Temporary Water Service
A. The Owner will pay the cost of temporary water. Exercise measures to conserve energy. Utilize the Owner's existing water system, extend and supplement with temporary devices as needed to maintain the specified conditions for construction operations.

1.9 Temporary Sanitary Facilities
A. The existing designated facilities located within each building may be used during construction operations. Maintain daily in a clean and sanitary condition.
B. At the end of construction, return the facilities to the same or better condition as the original condition.

1.10 Field Offices and Sheds
A. A designated existing space within the building may be used for field offices upon approval of Owner:

1.11 Vehicular Access
A. Location as approved by the Owner.
B. Provide unimpeded access for emergency vehicles. Maintain 20-foot width driveways with turning space between and around combustible materials.
C. Provide and maintain access to fire hydrants and control valves free of obstructions.
D. Use designated existing on-site roads for construction traffic.

1.12 Parking
A. Locate as approved by the Owner.
B. When site space is not adequate, arrange through the Owner for additional off-site parking.
C. Use of designated existing on-site streets and driveways for construction traffic is permitted. Tracked vehicles are not allowed on paved areas.
D. Use of designated areas of existing parking facilities by construction personnel is permitted.
E. Do not allow heavy vehicles or construction equipment in parking areas.

1.13 Progress Cleaning and Waste Removal
A. Maintain areas free of waste materials, debris, and rubbish. Maintain the site in a clean and orderly condition. Building must be clear of all debris at conclusion of each day. The building will remain a fully occupied building for the duration of the project.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean the interior areas prior to the start of surface finishing and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and rubbish from the site periodically, weekly, or daily, as necessary to prevent an on-site accumulation of waste material, debris, and rubbish, and dispose off-site.

E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.14 Security

A. Security Program:
   1. Protect the Work, the existing premises, or the Owner's operations from theft, vandalism, and unauthorized entry.
   2. Initiate the program in coordination with the Owner's existing security system at the mobilization.
   3. Maintain the program throughout the construction period until Owner occupancy.

B. Entry Control:
   1. Restrict the entrance of persons and vehicles into the Project site, or the existing facilities.
   2. Allow entrance only to authorized persons with the proper identification.
   3. Maintain a log of workers and visitors, make available to the Owner on request.
   4. Coordinate the access of the Owner's personnel to the site in coordination with the Owner's security forces.

1.15 Fire Detection

A. Each day, before beginning any construction operations that can potentially trigger the existing fire alarm detection system, the Contractor is permitted to temporarily disconnect the system in the specific areas of construction, for as long as may be necessary. The Owner shall be notified each time the existing system is disabled.

B. Failure to so notify the Owner will subject the Contractor to a monetary fine for each occurrence, should the fire detection system be activated inadvertently by a construction activity.

1.16 Water Control

A. Grade the site to drain. Maintain excavations free of water. Provide, operate, and maintain the pumping equipment.

B. Protect the site from puddling or running water. Provide water barriers as required to protect the site from soil erosion.

1.17 Dust Control
A. Execute the Work by methods to minimize raising dust from construction operations.

B. Provide positive means to prevent air-borne dust from dispersing into the atmosphere.

### 1.18 Erosion and Sediment Control

A. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.

B. Minimize the amount of bare soil exposed at one time.

C. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.

D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.

E. Periodically inspect the earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

### 1.19 Noise Control

A. Provide methods, means, and facilities to minimize noise produced by the construction operations.

### 1.20 Pest Control

A. Provide methods, means, and facilities to prevent pests and insects from damaging the Work, or entering the facility.

### 1.21 Pollution Control

A. Provide methods, means, and facilities to prevent the contamination of soil, water, and the atmosphere from discharge of noxious, toxic substances, and pollutants produced by the construction operations.

### 1.22 Rodent Control

A. Provide methods, means, and facilities to prevent rodents from accessing or invading the premises.

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**END OF SPECIFICATION**
PART 1 GENERAL

1.01 SUBMITTALS

A. Product Data Submittals: Submit manufacturer’s standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers’ standard data to provide information specific to this Project.

B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
   1. For selection from standard finishes, submit samples of the full range of the manufacturer’s standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by Contract Documents.

B. Use of products having any of the following characteristics is not permitted:

C. Where other criteria are met, Contractor shall give preference to products that:
   1. If used on interior, have lower emissions, as defined in Section 01 61 16.
   2. If wet-applied, have lower VOC content, as defined in Section 01 61 16.

2.02 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

PART 3 EXECUTION

3.01 SUBSTITUTION LIMITATIONS

A. See Section 01 25 00 - Substitution Procedures.

3.02 TRANSPORTATION AND HANDLING

A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.

B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.

C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

D. Transport and handle products in accordance with manufacturer's instructions.

E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.
3.03 STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. See Section 01 74 19.

B. Store and protect products in accordance with manufacturers' instructions.

C. Store with seals and labels intact and legible.

D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.

E. For exterior storage of fabricated products, place on sloped supports above ground.

F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.

G. Comply with manufacturer's warranty conditions, if any.

H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

I. Prevent contact with material that may cause corrosion, discoloration, or staining.

J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION
SECTION 01 70 00
EXECUTION REQUIREMENTS

1.0 GENERAL

1.1 Section Includes

A. Examination.
B. Preparation.
C. Protection of adjacent construction.
D. Cutting and patching.
E. Special procedures.
F. Progress cleaning and waste removal.
G. Final cleaning.
H. Starting and adjusting of systems.
I. Demonstration and Instructions.
J. Testing, adjusting and balancing.
K. Protecting Installed Construction.

1.2 Examination

A. Acceptance of Conditions:
   1. Verify that existing applicable site conditions, substrates, or substrate surfaces are acceptable or meet specific requirements of individual specifications Sections, for subsequent Work to proceed.
   2. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
   3. Examine and verify specific conditions described in individual specifications Sections.
   4. Verify that utility services are available, of correct characteristics, and in correct locations.
   5. Beginning of new Work, that relies upon the quality and proper execution of Work of a preceding trade, means acceptance of that preceding Work as appropriate for the proper execution of subsequent Work.
   6. Acceptance of preceding Work that can be shown later to have adversely affected proper performance of new Work may result in removal and repeat performance of all Work involved at no cost to the Owner.

1.3 Preparation

A. Clean substrate surfaces prior to applying next material or substance.
B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply substrate primer, sealer, or conditioner, required or recommended by manufacturer, prior to applying any new material or substance in contact or bond.

D. Prior to the application, installation, or erection of any products and product components, perform any other preparatory operations, or surface or substrate modifications, as may be specified or directed by product manufacturers.

1.4 Protection of Adjacent Construction

A. Protect existing adjacent properties and provide special protection where specified in individual Specification Sections.

B. Provide protective coverings at wall, projections, jambs, sills, and soffits of existing openings.

C. Protect existing finished floors, stairs, and other existing surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

D. Repair adjacent properties damaged by construction operations to original condition to the satisfaction of the Owner.

E. Prohibit unnecessary traffic from existing landscaped areas.

F. Restore grassed landscaped areas damaged by construction operations to full healthy growth, by installing loam and sod to the requirements, and under the supervision of, the Owner.

1.5 Cutting and Patching

A. Employ original, or skilled and experienced installer to perform cutting and patching.

B. Submit written request in advance of cutting or altering elements which affect:
   1. Structural integrity of element.
   2. Integrity of weather-exposed or moisture-resistant elements.
   3. Efficiency, maintenance, or safety of element.
   5. Existing construction, or Work of separate contractor.

C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
   1. Fit the several parts together, to integrate with other Work.
   2. Uncover Work to install or correct ill-timed Work.
   3. Remove and replace defective and non-conforming Work.
   4. Remove samples of installed Work for testing.
   5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

D. Execute Work by methods that will avoid damage to other Work and provide proper surfaces to receive patching and finishing.

E. Cut masonry, concrete, and other rigid materials using masonry saw or core drill.

F. Restore Work with new Products in accordance with requirements of Contract Documents.

G. Fit Work tight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
H. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.

I. At penetration of fire rated, partitions, ceiling, or floor construction completely seal voids with fire rated or fire-resistant material in accordance with Section 07840, to full thickness of the penetrated element.

J. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

K. Identify any hazardous substance or conditions exposed during the Work to the Engineer for decision or remedy.

1.6 Special Procedures

A. Materials: As specified in product Sections; match existing with new products, or salvaged products as appropriate, for patching and extending work.

B. Employ skilled and experienced installer to perform alteration work.

C. Cut, move, or remove items as necessary for access to alterations and renovation Work. Replace and restore at completion.

D. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.

E. Remove debris and abandoned items from area and from concealed spaces.

F. Prepare surface and remove surface finishes to provide installation of new Work and finishes.

G. Close openings in exterior surfaces to protect existing Work from weather and extremes of temperature and humidity.

H. Remove, cut, and patch Work in a manner to minimize damage and to provide means of restoring products and finishes to original or specified condition.

I. Refinish existing visible surfaces to remain in renovated rooms and spaces to specified condition for each material, with a neat transition to adjacent finishes.

J. Where new Work abuts or aligns with existing, provide a smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.

K. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line at a natural line of division and submit recommendation to Engineer for review.

L. Where a change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth transition to Engineer for review.

M. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.

N. Patch or replace portions of existing surfaces which are damaged, or showing other imperfections.

O. Finish the surfaces as specified in individual product Sections, or as indicated on the Drawings.
1.7 **Progress Cleaning and Waste Removal**

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and rubbish from site periodically or weekly and dispose of off-site.

E. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.8 **Final Cleaning**

A. Execute final cleaning of areas affected by the Work prior to final project assessment.

B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

C. Clean equipment and fixtures to a sanitary condition using cleaning materials appropriate to the surface and material being cleaned.

D. Clean or replace filters of operating equipment as directed by Engineer.

E. Clean debris from roofs, gutters, downspouts, and drainage systems.

F. Clean site; sweep paved areas, rake clean landscaped surfaces.

G. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.9 **Starting And Adjusting Of Systems**

A. Coordinate schedule for starting and adjusting of various equipment and systems.

B. Notify Engineer and Owner seven days prior to starting and adjusting of each item.

C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions which may cause damage.

D. Verify that tests, meter readings and specified electrical characteristics agree with those required by the equipment or system manufacturer.

E. Verify wiring and support components for equipment are complete and tested.

F. Execute starting and adjusting under supervision of responsible Contractor's personnel or manufacturer's representative, in accordance with manufacturer's instructions.

G. Adjust operating Products and equipment to ensure smooth and unhindered operation.
H. When specified in individual specifications Section, require manufacturer to provide authorized representative to be present at the site to inspect, check, and approve equipment or system installation prior to starting, and to supervise placing of equipment or system in operation.

I. Submit a written report in accordance with Section 01400 that equipment or system has been properly installed and is functioning correctly.

1.10 Demonstration and Instructions

A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.

B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manuals with Owner's personnel in detail to explain all aspects of operation and maintenance.

D. Demonstrate start-up, operation, control, adjustment, trouble shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled or agreed upon times, at equipment or system location.

E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

1.11 Testing, Adjusting, And Balancing

A. Submit, for the Owner's approval, the name of an independent firm to perform testing, adjusting, and balancing.

B. The independent firm will perform services specified in individual specifications Sections.

C. Reports will be submitted by the independent firm to the Engineer and the Owner indicating observations and test results, indicating compliance or non-compliance with specified requirements and with the requirements of the Contract Documents.

1.12 Protecting Installed Construction

A. Protect installed Work and provide special protection where specified in individual specification sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Repair or replace installed Work damaged by construction operations, as directed by the Engineer.

END OF SPECIFICATION
SECTION 02 41 00
DESTRUCTION

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Selective demolition of built site elements.

PART 3 EXECUTION

2.01 SCOPE
A. Remove portions of existing buildings in the following sequence:
   1. Existing roofing materials down to tar and gravel roofing material.
   2. Remove abandoned mechanical, electrical and plumbing roof components as indicated on drawings.
   3. Abate siding panels as indicated on drawings.
B. Remove other items indicated, for salvage, relocation, and recycling.

2.02 GENERAL PROCEDURES AND PROJECT CONDITIONS
A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   3. Do not close or obstruct roadways or sidewalks without permit.
   4. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
   5. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
B. Do not begin removal until receipt of notification to proceed from Owner.
C. Protect existing structures and other elements that are not to be removed.
   1. Provide bracing and shoring.
   2. Prevent movement or settlement of adjacent structures.
   3. Stop work immediately if adjacent structures appear to be in danger.

2.03 DEBRIS AND WASTE REMOVAL
A. Remove debris, junk, and trash from site.
B. Leave site in clean condition, ready for subsequent work.
C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION
SECTION 02 82 00
ASBESTOS REMEDIATION

1.0 GENERAL

1.1 Related Documents

A. All of the Contract Documents, including Drawings, General Conditions and other requirements apply to this project.

B. Known hazardous materials related to this project are limited to 10% chrysotile located on the underside of the exterior soffit as indicated in the attached report.

1.2 Asbestos Procedures

A. There is known existing asbestos containing materials (ACM) in the existing building as identified in the attached report. The Contractor shall formally notify each sub-contractor that there are reports included for review.

B. Unknown and inaccessible ACM may be encountered during the project. Where the Contractor encounters discover or encounter ACM during the scope of work the Contractor shall notify the Owner immediately. Action should be taken immediately to reduce, control or eliminate the risk of exposure of contractors and the public to ACM.

C. Responsible Person: The Contractor is required to designate one (1) qualified on-site employee to be in charge of coordination with the project team and the Contractor with regards to the ACM.

D. Responsibility for Hazardous Materials Discovery: It is the sole responsibility of the Contractor and sub-contractors to undertake whatever measures and methods of procedures are necessary to appropriately safeguard the health and safety of all workers and members of the public with respect to any ACM discovery with the project work.

E. Indemnification: To the fullest extent permitted by law, the Contractor and sub-contractor shall indemnify and hold harmless by the Owner and project team and their agents and employees from and against any claims, damages, losses and expenses including, but not limited to, attorney’s fees arising out of or relating to an such claim, damage, loss or expense if attributable to bodily injury, sickness, disease or death, or to damage to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and is caused in whole or part by any negligent act or omission of the Contractor and sub-contractor anyone directly or indirectly employed by any of them or anyone whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

1.3 Lead Containing Surface Coatings and Building Components

A. The Contractor and sub-contractor shall be made aware that Lead Based Paints, other surface coatings, and building components may exist throughout the building. OSHA’s Lead Standard for the Construction Industry, Tile 29 Code of Federal Regulations 1926.62, covers lead in a variety of forms, including metallic lead, all inorganic lead components, and organic lead soaps. OSHA’s
lead in construction standard applies to all construction work where an employee may be exposed to lead. All work related to construction, alteration, or repair, including painting, is included. In construction, lead was used in many different types of building component, surfacing, coatings and applications including, but not limited to, roofs, sidings/surfaces, tank linings, and electrical conduits, plumbing fixtures, pipes and waste lines, soft solder, used chiefly for soldering tinplate and copper pipe joints, is an alloy of lead and tin, paint, varnish, shellac and other surface coating materials. Construction projects vary in their scope and potential for exposing workers to lead and other hazards. Due to the age of the building, it is assumed that there may be lead-containing building materials and surface coatings located within the interior of the building. It is the Contractor’s responsibility to protect their employees from lead exposures and to prevent the release of lead into the environment. Contractor will be responsible to follow all local, state and federal, RI Department of Environmental Management (RIDEM), Occupational and Safety and Health Administration (OSHA), and Environmental Protection Administration rules, regulations and laws concerning lead in construction activities.

B. The Contractor and respective sub-contractors are solely responsible for means and methods and techniques used for demolition.

C. The Contractor and sub-contractor shall at his own cost and expense comply with all laws, ordinance, rules and regulations or Federal, State, Regional and Local authorities during demolition, prepping, sanding, cutting, burning, scraping, paint over, grinding and regarding handling, storing and disposing of demolition/renovation debris.

1.4 Other

A. The Contractor shall be made aware that other hazardous materials may be found inside the building.

2.0 PRODUCTS

Not Applicable

3.0 EXECUTION

Not Applicable

END OF SPECIFICATION
Dear Joseph M. Lepore,

We at SanAir would like to thank you for the work you recently submitted. The 17 sample(s) were received on Tuesday, April 05, 2022 via UPS. The final report(s) is enclosed for the following sample(s): R-1A, R-1B, R-1C, R-1D, R-1E, R-1F, R-2A, R-2B, R-2C, R-2D, R-3A, R-3B, R-3C, R-4A, R-5A, R-5B, R-6A.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Sandra Sobrino
Asbestos & Materials Laboratory Manager
SanAir Technologies Laboratory

Final Report Includes:
- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:
- 17 samples in Good condition.
## Asbestos Bulk PLM EPA 600/R-93/116

<table>
<thead>
<tr>
<th>SanAir ID / Description</th>
<th>Stereoscopic Appearance</th>
<th>Components % Fibrous</th>
<th>Components % Non-fibrous</th>
<th>Asbestos Fibers</th>
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### Asbestos Bulk PLM EPA 600/R-93/116

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Analyst: Sobrino, Sandra

Analysis Date: 4/13/2022

Approved Signatory: [Signature]

Date: 4/13/2022
Disclaimer

This report is the sole property of the client named on the SanAir Technologies Laboratory chain-of-custody (COC). Results in the report are confidential information intended only for the use by the customer listed on the COC. Neither results nor reports will be discussed with or released to any third party without our client's written permission. The final report shall not be reproduced except in full without written approval of the laboratory to assure that parts of the report are not taken out of context. The information provided in this report applies only to the samples submitted and is relevant only for the date, time, and location of sampling. The accuracy of the results is dependent upon the client’s sampling procedure and information provided to the laboratory by the client. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the sample(s) in the condition in which they arrived at the laboratory and information provided by the client on the COC, such as: project number, project name, collection dates, po number, special instructions, samples collected by, sample numbers, sample identifications, sample type, selected analysis type, flow rate, total volume or area, and start stop times that may affect the validity of the results in this report. Samples were received in good condition unless otherwise noted on the report. SanAir assumes no responsibility or liability for the manner in which the results are used or interpreted. This report does not constitute and shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any other U.S. governmental agencies and may not be certified by every local, state, and federal regulatory agencies.

Samples are held for a period of 60 days. Fibers smaller than 5 microns cannot be seen with this method due to scope limitations.

For NY state samples, method EPA 600/M4-82-020 is performed.

NYELAP Disclaimer:
Polarized-light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

Asbestos Certifications
NVLAP lab code 200870-0
City of Philadelphia: ALL-460
PA Department of Environmental Protection Number: 68-05397
California License Number: 2915
Colorado License Number: AL-23143
Connecticut License Number: PH-0105
Massachusetts License Number: AA000222
Maine License Number: LB-0075, LA-0084
New York ELAP lab ID: 11983
Rhode Island License Number: PCM00126, PLM00126, TEM00126
Texas Department of State Health Services License Number: 300440
Commonwealth of Virginia 3333000323
Washington State License Number: C989
West Virginia License Number: LT000616
Vermont License: AL166318
Louisiana Department of Environmental Quality: 212253, Cert 05088

Revision Date: 8/14/2020
SanAir Technologies Laboratory

10501 Trade Ct., Suite 100
N. Chesterfield, VA 23236
804.897.1177 / 888.895.1177
Fax 804.897.0070
sanair.com

Asbestos Chain of Custody
Form 140, Rev 6, 1/26/2022

SanAir ID Number: 22016481

Company: Environmental Consulting & Management Inc
Address: 50 Kickemuit Ave
City, St., Zip: Bristol, RI 02809
State of Collection: RI
Account#: 2667
P.O. Number:

Project #: 020258
Project Name: Adam Bledsoe
Date Collected: 4/4/2012

Bulk

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Air

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Soil

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New York ELAP

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<tr>
<th>ABWA</th>
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<tr>
<td>ABDMV</td>
<td>TEM Microvac ASTM D-5755</td>
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Water

| ABHE | EPA 100.2 |

Special Instructions

Sample # | Sample Identification/Location | Volume or Area | Sample Date | Flow Rate* | Start – Stop Time*
---|---|---|---|---|---
R-1A | Roof Core/T-16 under Rubber | | | | |
R-1B | | | | | |
R-1C | | | | | |
R-1D | | | | | |
R-1E | | | | | |
R-1F | Penetration Sealants | | | | |
R-2A | | | | | |
R-2B | | | | | |
R-2C | | | | | |
R-2D | | | | | |
R-3A | Roof Edge - under Rubber | | | | |
R-3B | | | | | |

Relinquished by: [Signature] Date: 4/4/2012

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of $150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.
<table>
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<th>Sample #</th>
<th>Sample Identification/Location</th>
<th>Volume or Area</th>
<th>Sample Date</th>
<th>Flow Rate*</th>
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<td>R-5A</td>
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<td>R-6B</td>
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</tbody>
</table>

**Special Instructions**

If no technician is provided, then the primary contact for your account will be selected. Unless scheduled, the turnaround time for all samples received after 3 pm EST will be logged in the next business day. Weekend or holiday work must be scheduled ahead of time and is charged at 150% of the 3hr TAT or a minimum charge of $150. A courier charge will be applied for same day and one-day turnaround times for offsite work. SanAir covers Ground and Next Day Air shipping. Shipments billed to SanAir with a faster shipping rate will result in additional charges.
SECTION 06 10 00
ROUGH CARPENTRY

PART 1 GENERAL
1.01 SECTION INCLUDES
A. Sheathing.
B. Roofing nailers.
C. Roofing cant strips.
D. Concealed wood blocking, nailers, and supports.

PART 2 PRODUCTS
2.01 GENERAL REQUIREMENTS
A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
   1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
   2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS
A. Sizes: Nominal sizes as indicated on drawings, S4S.
B. Moisture Content: S-dry or MC19.

2.03 CONSTRUCTION PANELS
A. Wall Sheathing: PS 2 type.
   2. Grade: Sheathing.
   4. Edge Profile: Square edge.
B. Wall Sheathing, 3/4": Plywood, PS 1, Grade C-D, Exposure I.

PART 3 EXECUTION
3.01 INSTALLATION - GENERAL
A. Select material sizes to minimize waste.
B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.

3.02 BLOCKING, NAILERS, AND SUPPORTS
A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

3.03 INSTALLATION OF CONSTRUCTION PANELS
A. Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using nails or screws.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
A. Water-resistive barriers.

1.02 RELATED REQUIREMENTS
A. Section 06 10 00 - Rough Carpentry: Water-resistive barrier under exterior cladding.

PART 2 PRODUCTS

2.01 WATER-RESISTIVE BARRIER MATERIALS
A. Drainable Barrier Sheet: Nonwoven and nonperforated polypropylene material with 1/16 inch gap created by spacers providing drainage space.
   1. Width: 5 feet, minimum.
   2. Water Vapor Permeance: 19 perms, minimum, when tested in accordance with ASTM E96/E96M using Procedure A - Desiccant Method, at 73.4 degrees F.
   3. Ultraviolet (UV) and Weathering Resistance: Approved by manufacturer for up to 120 days of weather exposure.
   4. Surface Burning Characteristics: Flame spread index of 25 or less, smoke developed index of 450 or less, Class A when tested in accordance with ASTM E84.
   5. Seam and Perimeter Tape: As recommended by sheet manufacturer.

2.02 ACCESSORIES
A. Sealants, Tapes, and Accessories Used for Sealing Water-Resistive Barrier and Adjacent Substrates: As indicated or complying with water-resistive barrier manufacturer's installation instructions.

PART 3 EXECUTION

3.01 INSTALLATION
A. Install materials in accordance with manufacturer's installation instructions.
B. Water-Resistive Barriers: Install continuous water-resistive barrier over surfaces indicated, with sheets lapped to shed water but with seams not sealed.
C. Mechanically Fastened Exterior Sheets:
   1. Install sheets shingle-fashion to shed water, with seams aligned horizontal.
   2. Overlap seams as recommended by manufacturer, 6 inches, minimum.
   3. Overlap at outside and inside corners as recommended by manufacturer, 12 inches, minimum.
   4. Install water-resistive barrier over jamb flashings.
   5. Install head flashings under water-resistive barrier.
   6. At framed openings with frames having nailing flanges, extend sheet into opening and over flanges; at head of opening, seal sheet over flange and flashing.
D. Openings and Penetrations in Exterior Water-Resistive Barriers:
   1. Install flashing over sills, covering entire sill framing member, and extend at least 5 inches onto water-resistive barrier and at least 6 inches up jambs; mechanically fasten stretched edges.
   2. At openings filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with sealing tape at least 4 inches wide; do not seal sill flange.
   3. At openings filled with nonflanged frames, seal water-resistive barrier to each side of framing at opening using flashing at least 9 inches wide, and covering entire depth of framing.
   4. At head of openings, install flashing under water-resistive barrier extending at least 2 inches beyond face of jambs; seal water-resistive barrier to flashing.
5. At interior face of openings, seal gaps between window and door frames and rough framing using appropriate joint sealant over backer rod.

6. Service and Other Penetrations: Form flashing around penetrating items and seal to surface of water-resistive barrier.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
A. Manufactured metal panels for exterior wall panels, with related flashings and accessory components.

1.02 RELATED REQUIREMENTS
A. Section 06 10 00 - Rough Carpentry: Wall panel substrate.
B. Section 07 25 00 - Weather Barriers: Water-resistive barrier under wall panels.
C. Section 07 92 00 - Joint Sealants: Sealing joints between metal wall panel system and adjacent construction.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Indicate dimensions, layout, joints, construction details, and methods of anchorage.
C. Samples: Submit two samples of wall panel, 12 inch by 12 inch in size illustrating finish color, sheen, and texture.
D. Manufacturer’s Qualification Statement.
E. Installer’s Qualification Statement.

1.05 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years of documented experience.
B. Installer Qualifications: Company specializing in installing products of the type specified in this section with minimum ten years of documented experience.

1.06 MOCK-UP
A. Construct mock-up, minimum eight feet long by four feet high; include panel and outside corners system, attachments to building frame, associated vapor retarder and air seal materials, weep drainage system, sealants and seals, related insulation in mock-up.
B. Locate where directed by Architect.
C. Mock-up may not remain as part of the Work.

1.07 DELIVERY, STORAGE, AND HANDLING
A. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
B. Store prefinished material off the ground and protected from weather; prevent twisting, bending, or abrasion; provide ventilation; slope metal sheets to ensure proper drainage.
C. Prevent contact with materials that may cause discoloration or staining of products.

1.08 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Correct defective work within a five year period after Date of Substantial Completion, including defects in water tightness and integrity of seals.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design:
   1. Metal Wall Panels - Concealed Fasteners: Painted Aluminum Panels manufactured by Dri-Design.
   2. Sizes: 6", 8" 12" high by 96" typical length.
   3. Outside corner: as detailed Knife Edge
   4. Color: 2 colors and/or textures as indicated on drawings.

B. Other Acceptable Manufacturers - Metal Wall Panels - Concealed Fasteners:
   1. Approved Equals.
   2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 MANUFACTURED METAL PANELS

A. Wall Panel System: Factory fabricated prefinished metal panel system, site-assembled.
   1. Provide exterior wall panels.
   2. Design and size components to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of wall.
   4. Movement: Accommodate movement within system without damage to components or deterioration of seals, movement between system and perimeter components when subject to seasonal temperature cycling; dynamic loading and release of loads; and deflection of structural support framing.
   5. Air Leakage: Less than 0.01 cfm/sf when tested at 20 psf differential pressure in accordance with ASTM E283.
   6. Water Leakage: No uncontrolled water leakage when tested at 20 psf differential pressure in accordance with ASTM E331.
   7. Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.
   8. Fabrication: Formed true to shape, accurate in size, square, and free from distortion or defects; pieces of longest practical lengths.

B. Expansion Joints: Same material, thickness and finish as exterior sheets; 20 gage, 0.032 inch thick; manufacturer's standard brake formed type, of profile to suit system.

C. Trim: Same material, thickness and finish as exterior sheets; brake formed to required profiles.

D. Anchors: Stainless steel.

2.03 MATERIALS

2.04 FINISHES

A. Exposed Surface Finish: Panel manufacturer's standard polyvinylidene fluoride (PVDF) coating, top coat over epoxy primer.

2.05 ACCESSORIES

A. Gaskets: Manufacturer's standard type suitable for use with system, permanently resilient; ultraviolet and ozone resistant.

B. Concealed Sealants: Non-curing butyl sealant or tape sealant.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that building framing members are ready to receive panels.
3.02 INSTALLATION
   A. Install panels on walls in accordance with manufacturer's instructions.
   B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.
   C. Fasten panels to structural supports; aligned, level, and plumb.
   D. Locate joints over supports.
   E. Use concealed fasteners unless otherwise approved by Architect.
   F. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.

3.03 TOLERANCES
   A. Maximum Offset From True Alignment Between Adjacent Members Butting or In Line: 1/16 inch.
   B. Maximum Variation from Plane or Location Indicated on Drawings: 1/4 inch.

3.04 CLEANING
   A. Remove site cuttings from finish surfaces.
   B. Remove protective material from wall panel surfaces.
   C. See Section 01 74 19 - Construction Waste Management and Disposal, for additional requirements.
   D. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.

END OF SECTION
SECTION 07 54 00
THERMOPLASTIC MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Mechanically attached system with thermoplastic roofing membrane.
B. Adhered system with thermoplastic roofing membrane.
C. Insulation, flat and tapered.
D. Cover boards.
E. Flashings.
F. Roofing cant strips, stack boots, roofing expansion joints, and walkway pads.

1.02 RELATED REQUIREMENTS
A. Section 07 62 00 - Sheet Metal Flashing and Trim: Counterflashings and reglets.

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
C. Shop Drawings: Submit drawings that indicate joint or termination detail conditions, conditions of interface with other materials, and paver layout.
D. Manufacturer's qualification statement.
E. Installer's qualification statement.
F. Warranty Documentation:
   1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
   2. Submit installer's written verification that installation complies with warranty conditions for waterproof membrane.

1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years of documented experience.
B. Installer Qualifications: Company specializing in performing work of this section with at least three years of documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Deliver materials in manufacturer's original containers, dry and undamaged, with seals and labels intact, unless otherwise indicated.
B. Store materials in weather protected environment, clear of ground and moisture.
C. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.
D. Protect foam insulation from direct exposure to sunlight.

1.06 WARRANTY
A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
B. Material Warranty: Provide membrane manufacturer's warranty agreeing to replace material that shows manufacturing defects within five years after installation.
C. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
   1. Warranty Term: 20 years.
   2. For repair and replacement include costs of both material and labor in warranty.
PART 2 PRODUCTS

201 MANUFACTURERS
A. Thermoplastic Polyolefin (TPO) Membrane Roofing Materials:
   2. Firestone Building Products; ______: www.firestonebpco.com/#sle.
   3. GAF; EverGuard TPO 60 mil: www.gaf.com/#sle.
B. Insulation:

202 MEMBRANE ROOFING AND ASSOCIATED MATERIALS
A. Membrane Roofing Materials:
   1. TPO: Thermoplastic polyolefin (TPO) complying with ASTM D6878/D6878M, sheet contains reinforcing fabrics or scrims.
      a. Thickness: 60 mil, 0.060 inch, minimum.
   2. Sheet Width:
      a. Adhered Application: Limit width to 120 inches, maximum, when ambient temperatures are less than 40 degrees F for extended period of time during installation.
B. Seaming Materials: As recommended by membrane manufacturer.
C. Flexible Flashing Material: Same material as membrane.

203 COVER BOARDS
A. Cover Boards: Glass-mat faced gypsum panels complying with ASTM C1177/C1177M.
   1. Thickness: 1/2 inch, fire-resistant.
   2. Products:

204 INSULATION
A. Polyisocyanurate (ISO) Board Insulation: Rigid cellular foam, complying with ASTM C1289.
   1. Classifications:
   2. Board Size: 48 by 96 inches.
   3. Board Thickness: 5 inches.

205 ACCESSORIES
A. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.
B. Membrane Adhesive: As recommended by membrane manufacturer.

PART 3 EXECUTION

301 EXAMINATION
A. Verify that surfaces and site conditions are ready to receive work.
B. Verify deck is supported and secure.
C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
D. Verify deck surfaces are dry and free of snow or ice.
E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

302 INSTALLATION, GENERAL
A. Perform work in accordance with manufacturer's instructions, NRCA (RM), and NRCA (WM) applicable requirements.
B. Do not apply roofing membrane during cold or wet weather conditions.
C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.

D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

3.03 INSTALLATION - MEMBRANE

A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.

B. Shingle joints on sloped substrate in direction of drainage.

C. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches. Seal permanently waterproof. Apply uniform bead of sealant to joint edge.

D. At intersections with vertical surfaces:
   1. Extend membrane over cant strips and up a minimum of 4 inches onto vertical surfaces.
   2. Fully adhere flexible flashing over membrane and up to nailing strips.

E. Around roof penetrations, seal flanges and flashings with flexible flashing.

F. Coordinate installation of roof drains and sumps and related flashings.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Fabricated sheet metal items, including flashings and counterflashings.
   B. Reglets and accessories.

1.02 RELATED REQUIREMENTS
   A. Section 06 10 00 - Rough Carpentry: Wood nailers.
   B. Section 06 10 00 - Rough Carpentry: Wood blocking for batten seams.
   C. Section - Painting and Coating: Field painting.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
   A. See Section 01 33 00 - Administrative Requirements, for submittal procedures.
   B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.05 QUALITY ASSURANCE
   A. Perform work in accordance with SMACNA Architectural Sheet Metal Manual requirements and standard details, except as otherwise indicated.
   B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
   B. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 SHEET MATERIALS
   A. Pre-Finished Aluminum: ASTM B209 (ASTM B209M); .050 inch thick; plain finish shop pre-coated with modified silicone coating.
      2. Color: As selected by Architect from manufacturer’s standard colors.

2.02 ACCESSORIES
   A. Fasteners: Galvanized steel, with soft neoprene washers.
B. Primer: Zinc chromate type.
C. Protective Backing Paint: Zinc molybdate alkyd.
D. Sealant: Type specified in Section.
E. Plastic Cement: ASTM D4586, Type I.

2.03 FABRICATION
A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
B. Form pieces in longest possible lengths.
C. Hem exposed edges on underside 1/2 inch; miter and seam corners.
D. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
E. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.
F. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION
A. Install starter and edge strips, and cleats before starting installation.
B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

3.03 INSTALLATION
A. Conform to drawing details.
B. Insert flashings into reglets to form tight fit. Secure in place with lead wedges. Pack remaining spaces with lead wool. Seal flashings into reglets with sealant.
C. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
D. Apply plastic cement compound between metal flashings and felt flashings.
E. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
F. Seal metal joints watertight.

3.04 FIELD QUALITY CONTROL
A. See Section 01 40 00 - Quality Requirements, for field inspection requirements.
B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

END OF SECTION

Jensen Hughes
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StudioJAED Architects & Engineers
TRIM
PART 1 GENERAL

1.01 SECTION INCLUDES
A. Manufactured equipment rails, and pedestals.
B. Roof hatches.
C. Non-penetrating pedestals.
D. Roof curbs.

1.02 REFERENCE STANDARDS
D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

1.03 SUBMITTALS
A. See Section 01 33 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Manufacturer's data sheets on each product to be used.
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
   4. Maintenance requirements.
C. Shop Drawings: Submit detailed layout developed for this project. Show dimensioned location and number for each type of roof accessory.
D. Warranty Documentation:
   1. Submit manufacturer warranty.
   2. Ensure that forms have been completed in Owner's name and registered with manufacturer.
   3. Submit documentation that roof accessories accessories are acceptable to roofing manufacturer, and do not limit the roofing warranty.

1.04 DELIVERY, STORAGE, AND HANDLING
A. Store products in manufacturer's unopened packaging until ready for installation.
B. Store products under cover and elevated above grade.

1.05 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.

PART 2 PRODUCTS

2.01 MANUFACTURED CURBS
A. Manufactured Curbs, Equipment Rails, and Other Roof Mounting Assemblies: Factory-assembled hollow sheet metal construction, insulated, with fully mitered and welded corners, integral counterflashing, internal reinforcing, and top side and edges formed to shed water.
1. Sheet Metal: Hot-dip zinc coated steel sheet complying with ASTM A653/A653M, SS Grade 33; G60 coating designation; 18 gage, 0.048 inch thick.

2. Roofing Cants: Provide integral sheet metal roofing cants dimensioned to begin slope at top of roofing insulation; 1:1 slope; minimum cant height 4 inches.

3. Manufacture curb bottom and mounting flanges for installation directly on roof deck, not on insulation; match slope and configuration of roof deck.

4. Provide the layouts and configurations shown on the drawings.

B. Curbs Adjacent to Roof Openings: Provide curb on all sides of opening, with top of curb horizontal for equipment mounting.
   1. Provide preservative treated wood nailers along top of curb.
   2. Insulate inside curbs with 1-1/2 inch thick fiberglass insulation.
   3. Height Above Finished Roof Surface: 8 inches, minimum.

C. Equipment Rails: Two-sided curbs in straight lengths, with top horizontal for equipment mounting.
   1. Provide preservative treated wood nailers along top of rails.
   2. Height Above Finished Roof Surface: 12 inches, minimum.

D. Pipe, Duct, and Conduit Mounting Pedestals: Vertical posts, minimum 8 inches square unless otherwise indicated.
   1. Height Above Finished Roof Surface: 12 inches, minimum.

202 ROOF HATCHES

A. Manufacturers - Roof Hatches:
   1. Acudor Products Inc; Galvanized Steel Roof Hatch: www.acudor.com/#sle.
   2. Babcock-Davis; ThermalMAX: www.babcockdavis.com/#sle.
   4. Substitutions: See Section 01 60 00 - Product Requirements.

B. Roof Hatches and Smoke Vents, General: Factory-assembled steel frame and cover, complete with operating and release hardware.
   1. Style: Provide flat metal covers unless otherwise indicated.
   2. Mounting: Provide frames and curbs suitable for mounting conditions as indicated on drawings.
   3. Thermally Broken Hatches: Added insulation to frame and cover; available in manufacturer's standard, single leaf sizes; special sizes available upon request
   5. For Ships Ladder Access: Single leaf; 30 by 54 inches.

C. Frames/Curbs: One-piece curb and frame with integral cap flashing to receive roof flashings; extended bottom flange to suit mounting.
   1. Material: Galvanized steel, 14 gage, 0.0747 inch thick.
   3. Insulation: Manufacturer's standard; 1 inch rigid glass fiber, located on outside face of curb.
   4. Curb Height: 12 inches from finished surface of roof, minimum.

D. Metal Covers: Flush, insulated, hollow metal construction.
   1. Capable of supporting 40 psf live load.
   2. Material: Galvanized steel; outer cover 14 gage, 0.0747 inch thick, liner 22 gage, 0.03 inch thick.
   4. Insulation: Manufacturer's standard 1 inch rigid glass fiber.
   5. Gasket: Neoprene, continuous around cover perimeter.

E. Safety Railing System: Manufacturer's standard accessory safety rail system mounted directly to curb.
   2. Posts and Rails: Aluminum or steel tube.
3. Gate: Same material as railing; automatic closing with latch.
4. Finish: Manufacturer's standard, factory applied finish.
5. Gate Hinges and Post Guides: ASTM B221 (ASTM B221M), 6063 alloy, T5 temper aluminum.

F. Hardware: Steel, zinc coated and chromate sealed, unless otherwise indicated or required by manufacturer.
1. Lifting Mechanisms: Compression or torsion spring operator with shock absorbers that automatically opens upon release of latch; capable of lifting covers despite 10 psf load.
2. Hinges: Heavy duty pintle type.
3. Hold open arm with vinyl-coated handle for manual release.

2.03 NON-PENETRATING ROOFTOP SUPPORTS/ASSEMBLIES
A. Non-Penetrating Rooftop Assemblies: Manufacturer-engineered and factory-fabricated, with pedestal bases that rest on top of roofing membrane, not requiring any attachment to the roof structure and not penetrating the roofing assembly.
1. Design Loadings and Configurations: As required by applicable codes.
2. Height: Provide minimum clearance of 8 inches under supported items to top of roofing.
3. Support Spacing and Base Sizes: As required to distribute load sufficiently to prevent indentation of roofing assembly.
4. Steel Components: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A123/A123M.
5. Hardware, Bolts, Nuts, and Washers: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A153/A153M.

B. Non-Penetrating Pedestals: Steel pedestals with square, round, or rectangular bases.
2. Base Sizes: As required to distribute load sufficiently to prevent indentation of roofing assembly.
3. Steel Components: Stainless steel, or carbon steel hot-dip galvanized after fabrication in accordance with ASTM A123/A123M.

PART 3 EXECUTION

3.01 EXAMINATION
A. Do not begin installation until substrates have been properly prepared.
B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION
A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION
A. Install in accordance with manufacturer's instructions, in manner that maintains roofing weather integrity.

3.04 CLEANING
A. See Section 01 70 00 - Execution and Closeout Requirements for additional requirements.
B. Clean installed work to like-new condition.

3.05 PROTECTION
A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION
SECTION 07 90 05
JOINT SEALERS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Sealants and joint backer rods.
   B. Precompressed foam sealers.

1.02 RELATED REQUIREMENTS
   A. Section 01 33 13 - LEED Submittals: Including Materials Reporting Form, VOC Reporting Form
   B. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.
   C. Section 01 78 39 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.
   D. Section 01 81 13 LEED & Sustainable Design Requirements
   E. Section 01 81 19 Construction IAQ Mgmt
   F. Section 07 25 00 - Weather Barriers: Sealants required in conjunction with air barriers and vapor retarders;
   G. Section 07 62 00: Sealants required in conjunction with flashing.
   H. Section 08 80 00 - Glazing: Glazing sealants and accessories.

1.03 REFERENCE STANDARDS

1.04 ADMINISTRATIVE REQUIREMENTS
   A. Coordinate the work with other sections referencing this section.

1.05 SUBMITTALS
   A. See Section 01 33 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.
   C. Samples: Submit two samples, 2 x 1/2 in size illustrating sealant colors for selection.
   D. LEED Report: Submit VOC content documentation for all non-preformed sealants and primers.
   E. Manufacturer's Installation Instructions: Indicate special procedures, surface preparation, and perimeter conditions requiring special attention.

1.06 QUALITY ASSURANCE
   A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum 5 years documented experience.
   B. Applicator Qualifications: Company specializing in performing the work of this section with minimum 5 years experience.

1.07 FIELD CONDITIONS
   A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.
1.08 COORDINATION
A. Coordinate the work with all sections referencing this section.

1.09 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Correct defective work within a five year period after Date of Substantial Completion.
C. Warranty: Include coverage for installed sealants and accessories which fail to achieve airtight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Polyurethane Sealants:
   2. Bostik, Inc www.bostik-us.com
   4. Substitutions: See Section 01 60 00 - Product Requirements.
B. Acrylic Sealants (ASTM C920):
   4. Substitutions: See Section 01 60 00 - Product Requirements.
C. Preformed Compressible Foam Sealers and backer rods:
   2. Emseal Joint Systems, Ltd.
   4. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 SEALANTS
A. Sealants and Primers - General: Provide only products having lower volatile organic compound (VOC) content than required by South Coast Air Quality Management District Rule No.1168.
B. Type 1 - General Purpose Exterior Sealant: Polyurethane; ASTM C920, Grade NS, Class 25, Uses M, G, and A; single component.
   2. Product: Dynatrol II manufactured by Pecora.
   3. Applications: Use for:
      a. Control, expansion, and soft joints in masonry.
      b. Joints between concrete and other materials.
      c. Joints between metal frames and other materials.
      d. Other exterior joints for which no other sealant is indicated.
C. Type 2 - General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C 834, Type OP, Grade NF single component, paintable.
   3. Applications: Use for:
      a. Interior wall and ceiling control joints.
      b. Joints between door and window frames and wall surfaces.
      c. Other interior joints for which no other type of sealant is indicated.
D. Type 3 - Exterior Expansion Joint Sealer: ASTM D 2628, hollow neoprene(polychloroprene) compression gasket.
   1. Black color.
   2. Size and Shape: As indicated by drawings.
4. Applications: Use for:
   a. Exterior wall expansion joints.

E. Type 4 - Acoustical Sealant: acrylic sealant; ASTM C920, Grade NS, Class 12-1/2, Uses M and A; single component, solvent release curing, non-skinning.
   2. Applications: Use for concealed locations only:
      a. Sealant bead between top stud runner and structure and between bottom stud track and floor and where shown on plans.

F. Type 5 - Concrete Paving Joint Sealant: Polyurethane, self-leveling; ASTM C920, Class 25, Uses T, I, M and A; single component.
   2. Product: Dynatred manufactured by Pecora.
   3. Applications: Use for:
      a. Joints in sidewalks and vehicular paving.
      b. Where shown on plans.

203 ACCESSORIES
A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
C. Joint Backing: Round foam rod compatible with sealant; ASTM D 1667, closed cell PVC; oversized 30 to 50 percent larger than joint width.
D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that substrate surfaces and joint openings are ready to receive work.
B. Verify that joint backing and release tapes are compatible with sealant.

3.02 PREPARATION
A. Remove loose materials and foreign matter that could impair adhesion of sealant.
B. Clean and prime joints in accordance with manufacturer's instructions.
C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
D. Protect elements surrounding the work of this section from damage or disfigurement.

3.03 INSTALLATION
A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
B. Perform installation in accordance with ASTM C1193.
C. Perform acoustical sealant application work in accordance with ASTM C919.
D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
E. Measure joint dimensions and size joint backers to achieve the following, unless otherwise indicated:
   2. Neck dimension no greater than 1/3 of the joint width.
   3. Surface bond area on each side not less than 75 percent of joint width.
F. Install bond breaker where joint backing is not used.
G. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
H. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.

I. Tool joints concave.

J. Precompressed Foam Sealant: Do not stretch; avoid joints except at corners, ends, and intersections; install with face 1/8 to 1/4 inch below adjoining surface.

3.04 CLEANING
A. Clean adjacent soiled surfaces.

3.05 PROTECTION
A. Protect sealants until cured.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
A. Surface preparation.
B. Field application of paints.
C. Scope: Paint fascia trim and equipment as indicated on drawings.

1.02 RELATED REQUIREMENTS

1.03 REFERENCE STANDARDS
C. NACE (IMP) - Industrial Maintenance Painting; NACE International; Edition date unknown.
D. SSPC (PM1) - Good Painting Practice: SSPC Painting Manual, Vol. 1; Society for Protective Coatings.

1.04 DEFINITIONS
A. Conform to ASTM D 16 for interpretation of terms used in this section.

1.05 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data on all finishing products and special coatings, including VOC content.
C. Samples: Submit two paper chip samples, 1 X 1 inch in size illustrating range of colors and textures available for each surface finishing product scheduled.
D. Samples: Submit two painted samples, illustrating selected colors and textures for each color and system selected with specified coats cascaded. Submit on aluminum sheet, 6 x 6 inch in size.
E. Certification: By manufacturer that all paints and coatings comply with VOC limits specified.
F. Certification: By manufacturer that all paints and coatings do not contain any of the prohibited chemicals specified; GreenSeal GS-11 certification is not required but if provided shall constitute acceptable certification.
G. Manufacturer's Instructions: Indicate special surface preparation procedures and substrate conditions requiring special attention.
H. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

1.06 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum 5 years documented experience.
B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years experience.

1.07 REGULATORY REQUIREMENTS
A. Conform to applicable code for flame and smoke rating requirements for products and finishes.

1.08 DELIVERY, STORAGE, AND HANDLING
A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.09 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.

D. Minimum Application Temperature for Varnish Finishes: 65 degrees F for interior or exterior, unless required otherwise by manufacturer's instructions.

E. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

1.10 EXTRA MATERIALS

A. See Section 01 60 00 - Product Requirements, for additional provisions.

B. Supply 1 gallon of each color; store where directed.

C. Label each container with color, type, texture, and room locations in addition to the manufacturer's label.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.

B. Paints:
   1. ICI Paints North America: www.icipaints.com

C. Field-Catalyzed Coatings:

D. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 PAINTS AND COATINGS - GENERAL

A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
   1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.
   3. Supply each coating material in quantity required to complete entire project's work from a single production run.
   4. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.

B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
   1. Steel -- Shop Primer: Interior/Exterior Quick Dry Alkyd Primer for Metal; MPI #76.

C. Volatile Organic Compound (VOC) Content: Comply with Section 01 61 16.

D. Chemical Content: The following compounds are prohibited:
1. Aromatic Compounds: In excess of 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
2. Acrolein, acrylonitrile, antimony, benzene, butyl benzyl phthalate, cadmium, di (2-ethylhexyl) phthalate, di-n-butyl phthalate, di-n-octyl phthalate, 1,2-dichlorobenzene, diethyl phthalate, dimethyl phthalate, ethylbenzene, formaldehyde, hexavalent chromium, isophorone, lead, mercury, methyl ethyl ketone, methyl isobutyl ketone, methylene chloride, naphthalene, toluene (methylbenzene), 1,1,1-trichloroethane, vinyl chloride.

E. Colors: To be selected from manufacturer's full range of available colors.

2.03 PAINT SYSTEMS - EXTERIOR
A. Paint WE-OP-3A - Wood, Opaque, Alkyd, 3 Coat:
   1. One coat of alkyd primer sealer.
B. Paint ME-OP-3A - Ferrous Metals, Unprimed, Alkyd, 3 Coat:
   1. One coat of alkyd primer.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
C. Test shop-applied primer for compatibility with subsequent cover materials.

3.02 PREPARATION
A. Clean surfaces thoroughly and correct defects prior to coating application.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
D. Surfaces: Correct defects and clean surfaces which affect work of this section. Remove or repair existing coatings that exhibit surface defects.
E. Marks: Seal with shellac or stain blocker those which may bleed through surface finishes.
F. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
G. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

3.03 APPLICATION
A. Apply products in accordance with manufacturer's instructions.
B. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.

3.04 CLEANING
A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION
A. Protect finished coatings until completion of project.
B. Touch-up damaged coatings after Substantial Completion.

END OF SECTION